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ABSTRACT

The fundamentally psychological orientation of educational research over the years is now changing. The educational phenomenon is part of the institutional setting and, therefore, organizational restrictions and influences are being studied. In addition, the organizational approach to educational research carries the implication of a more holistic view of educaton. Nine articles are included, the titles and authors of which follow: (1) "On Form and Function in Organizational Theory" (Abrahamsson, B.); (2) "The School in the Perspective of Organizational Theory: Some Implications for Planned Educational Change" (Ellstrom, P. E.); (3) "The Organization as a Didactical 'Frame Factor'" (Tjeldvoll, A.); (4) "Control Structure and Strategies for Change" (Berg, G.); (5) "Schools under Pressure: Considerations Concerning the Management of Change during Times of Large Scale Educational Renewal" (Knip, H., and van der Vegt, R.); (6) "How Schools Sustain Sex-Role Inequities: An Outline for a Program of Action Research" (Schmuck, P. A., and Schmuck, R. A.); (7) "Working Conditions and Participation in Education for Different Groups of Employees" (Forsberg, B.); (8) "The Development of Cooperative Efforts in the Care and Treatment of Addicts in Sodermanland County" (Stensmo, C.); and (9) "Organization Theory and the School: a Paradox" (Hoyle, E.). (SI)

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EDUCATIONAL RESEARCH AND ORGANIZATION THEORY II

Nine papers presented at the international symposium on the relationship between Educational Research and Organization Theory.

A report from The Education and Organization Team, Uppsala, Sweden

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PREFACE

This report contains the papers presented at a conference on Educational Research and Organization Theory, together with a summary of the proceedings. The conference took place as part of a research programme with the same theme as the conference at the Department of Education at Uppsala University.

From the fundamentally psychological orientation of educational research over the years, the orientation has now changed in a direction that gives due regard to educational phenomena being part of their institutional setting. This new orientation includes the study of organizational restrictions and influences. Besides making room for the consideration of individual organizational aspects, the organizational approach to educational research carries the implication of a more holistic view of education. This is true if, for example, the school as an organization is seen as a function of steering by goals and rules as well as by the culture of the school.

This approach to educational research seems to have been neglected even in studies in recent years. The conference was therefore intended to gather knowledge from scholars active in the field in order to fill the gap in the conviction that an organizational approach to educational research would enrich the development of educational theory, particularly in terms of increasing the weight attached to explanatory and contextual factors in the elucidation of educational phenomena and processes.

Following this report, a report will be published in which these statements will be developed a step further and the discussion of our earlier report (or programme) elaborated.

We would like to thank everyone contributed to the conference and at the same time apologize for the inexcusable delay in the publication of this report.

Uppsala, December 1985.

Gunnar Berg Magnus Soderström Erik Wallin

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Symposium on the Relationship between Educational Research and Organization Theory

Background

The academic discipline of education has traditionally been - and remains to this day - dominated by psychological approaches of various kinds. In recent years some educationalists have turned their backs on this tradition and begun instead to study educational phenomena with a greater emphasis on the society in which they are located. In other words, such phenomena have been studied at a level and on terms other than those of schools themselves. In our view such approaches pave the way for a fruitful development of the discipline of education. With a view to broadening the field of educational research even further if possible, we - a number of researchers at the Department of Education of Uppsala University - have formed an informal team whose common denominator is an interest in the study of educational phenomena from various organization theory points of view. Two of us recently presented doctoral theses which analyse schools and working life using approaches based on organization theory.

We recently received a short-term research grant for a pilot study (Wallin et al., 1982) on the relationship between educational research and organization theory (known as the PeO Project). The aim of this project is to investigate the potential for a larger-scale project in the same field.

Aims

The aims of this conference were therefore:

- to discuss existing studies falling within the scope of our general heading
- to gain an approximate impression of the "state of art" with regard to links between education and organization theory
- to exemplify areas of educational research which lend themselves to study from an organizational angle.

General Programme for the Symposium on the Relationship between Educational Research and Organization Theory, 17 - 19 August, 1983.

Wednesday 17.8

10.30 Introduction.

12.00 Lunch.

13.00 General introduction to the Symposium. Erik Wallin

- Presentation of the PEO research project on Educational Research and Organizational Theory. Gunnar Berg & Magnus Söderstrom.
- Some notes on Educational Research today and the need for using Organizational Theory. Erik Wallin.

15.00 Coffee break.

15.30 Groups.

17.00 Break.

18.00 Dinner.

19.00 Group Sessions

- General Problems in the field of Organization Theory. Groups.

20.00 Social activities.

Thursday 18.8

07.30 Breakfast.

08.30 Papers:

- On Form and Function in Organization Theory (p. 7), Bengt Abrahamsson.

  Discussant: Gunilla Svingby. Chairman: Gunnar Berg.

09.30 Coffee break.

10.00 Papers:

- The School in the Perspective of Organization Theory: some implications for planned educational change (p. 30), Per-Erik Ellström.

  Discussant: Magnus Söderström. Chairman: Erik Wallin.

11.00
- The Organization as a Didactical "Frame Factor" (p. 49), Arild Tjeldvoll.

  Discussant: Gösta W. Berglund. Chairman: Magnus Söderström.

12.00 Lunch.

13.00 Papers:

- Control Structure and Strategies for Change (p. 63).
  Gunnar Berg.
  Discussant: Richard A. Schmuck. Chairman: Erik Wallin.

14.15

- Schools under Pressure: considerations concerning the management of change during times of large scale education renewal (p. 78).
  Rein vad der Vegt.
  Discussant: Glen Hultman. Chairman: Magnus Söderström.

15.30 Coffee break.

16.00 Papers:

- How Schools Sustain Sex-Role Inequities: An Outline for a Program of Action Research (p. 96). Patricia A. & Richard A. Schmuck.
  Discussant: Gunnar Handal. Chairman: Gunnar Berg.

18.00 Dinner.

19.00 How to go on with international contacts and cooperation in the field of Educational Research and Organizational Theory.
General discussion.

Social activities.

Friday 19.8

07.30 Breakfast.

08.30 Lecture: A model integrating organization and group work applied to personnel education. Siv Boalt Boethius.

09.15 Papers:

- Working Conditions and Participation in Education for different Groups of Employees (p. 113). Barbro Forsberg.
  Discussants: Annika Lantz & Birgit Pingel.
  Chairman: Magnus Söderström.

10.15 Coffee break.

10.45

- The Development of Cooperative Efforts in the Care and Treatment of Addicts in Södermanland County (p. 122). Christer Stensmo.

12.00 Lunch.

13.00 Summing up of the Symposium. General conclusions. Questions.
Chairman: Erik Wallin.

List of Participants

Abrahamsson, Bengt	Professor	The Swedish Center for Working Life, Stockholm
Berg, Gunnar	Research fellow	Uppsala University, Dept of Education
Berglund, Gösta W.	Professor	Uppsala University, Dept of Education
Boalt Boethius, Siv	Research fellow	University of Stockholm, Dept of Psychology
Clevestam, Dick	Consultant	Sinova Consultants Ltd, Stockholm
Dahlie, Jörgen	Professor	University of British Colombia, Dept of Social and Educational Studies
Ellstrom, Per-Erik	Research fellow	University of Linköping, Dept of Education
Forsberg, Barbro	Research fellow	Uppsala University, Dept of Education
Handal, Gunnar	Professor	University of Oslo, Inst of Educational Research
Helgeland, Ingeborg	Research fellow	The National Council for Innovation in Education, Oslo
Hultman, Glen	Research fellow	University of Linköping, Dept of Education
Lantz, Annika	Research fellow	University of Stockholm, Dept of Psychology
Lennung, Sven-Åke	Research fellow	University of Lund, Dept of Education
Pingel, Birgit	Research fellow	University of Stockholm, Dept of Psychology
Schmuck, Patricia A.	Professor	Lewis and Clark College, Oregon
Schmuck, Richard A.	Professor	University of Oregon, College of Education
Stensmo, Christer	Research fellow	Uppsala University, Dept of Education
Svingby, Gunilla	Research fellow	University of Gothenburg, Dept of Education
Söderström, Magnus	Research fellow	Uppsala University, Dept of Education
Tjeldvoll, Arild	Research fellow	University of Oslo, Dept of Education
van der Vegt, Rein	Professor	University of Nijmegen, Dept of Education
Wallin, Erik	Professor	Uppsala University, Dept of Education

Yttergren, Magdalena	Research fellow	Uppsala University, Dept of Education
Lidholt, Birgitta	Research assistant	Uppsala University, Dept of Education
Barrdahl, Mats	Research fellow	Uppsala University, Dept of Education; administrative coordinator

Chairman:	Erik Wallin
Assistant Chairmen:	Gunnar Berg
	Magnus Söderström

Bengt Abrahamsson

ON FORM AND FUNCTION IN ORGANIZATION THEORY

The relation between organizational form and organizational function has been the subject of considerable interest, and a good dela of confusion. Current theory often implicitly assumes, and somtimes explicitly states, that the way organizations function follows from their form and, consequently, that a change of form will result in a modification of function. Specifically, hierarchical organizational form is frequently associated with organizational dysfunction, and said to cause apathy, alienation and low work motivation among the organization's participants. The elimination of hierarchy therefore occupies a prominent place amongst suggestions for redesigning organizations. "De-bureaucratization" and the realization of peer-group structures constitute common goals of organizational reform and innovation. In current theory, the democratization of work organizations is often seen as directly linked to the achievement of less hierarchical structures.

How realistic are such goals? Can hierarchy be eliminated? Is the elimination of hierarchy a necessary condition for de-bureaucratization and organizational democracy? The purpose of this paper is to show (a) that inner-logical processes in organizations to a large extent determine organizational form; (b) that hierarchy is an immanent phenomenon rather than a product of design or strivings for control by some actor or power-holder; and (c) that the access to mandator positions, i.e. positions from where the organization's executive is controlled, rather than the form of the organization, is what makes an organization democratic. To develop organizational analysis and organizational reform further, I shall argue, we need to shift the focus of theory from matters of form to matters of distributive justice and owner prerogatives.

Concepts: Form and Function

By organizational form I mean the vertical and horizontal structuring of positions within the organization. "Form" refers to the anatomy of the organization as it is laid out in an organizational chart. The chart labels the various positions in terms of super- and subordination, order chains, and span of control.

In theory, one position may have several office-holders during a certain period of time, and a particular person may occupy any position in the organization. That is to say, the existence of a particular organizational form does not in itself imply that a particular set of people will permanently hold particular positions. Hierarchy does not preclude rotation and, again in theory, positions and incumbents (offices and office-holders) may be related in a totally random fashion. They seldom are, of course; and this is a major reason for the problem which this essay will address.

Organizational function generally refers to the consequences of organizational action, i.e., the effects of the deployment of organizational resources (persons, things; cf. Eister 1964) in order to achieve certain goals. The present discussion focuses on two particular goals: efficiency and atmosphere. "Efficiency" refers to the relation between a certain organizational activity and the costs of its execution or, more generally, the relation between the value of the organization's output and the costs of all inputs. "Atmosphere" denotes "attitudinal interactions and the systems consequences that are associated therewith", and indicates that transactions cannot be regarded in a strictly neutral and instrumental manner. The exchange process is itself often an object value. (Williamson 1975, pp. 37-39.)

The literature on organizations includes a wealth of works dealing with the theory and practice of creating atmosphere. Some examples are the writings of Roethlisberger (1941), Roethlisberger and Dickson (1941), Walker and Guest (1952), Mayo (1945), Friedmann (1955) and other representatives of the human relations tradition; contributions to the theory of contradictions between "organic" and "mechanistic" models of organization (e.g., Burns and Stalker 1961; Argyris 1964, 1967; McGregor (1960)); and writers in the field of organizational development, e.g., Bennis (1966, 1969), Beckhard (1969) and Schein (1969).

Most organizations strive to find optimum combinations of atmosphere and efficiency. Both goals are critical to their long-term survival. In other words, organizations must both achieve a certain level of productivity and respond to demands for participation and influence from the people working in the organization. Organizations that are not sufficiently productive fail to generate the income necessary to secure their continued existence; and organizations that bar participation fail to develop motivation and support among its personnel.

Organizations, Legitimacy and "Bureaucracy"

The goals of efficiency and atmosphere are usually stated explicitly, and recognized as essential to the organization's viability. But organizations do not always function to fulfill goals that are understood and accepted by the majority of their participants and/or other interested parties. They sometimes work for purposes and employ means that are hidden to or, if known, rejected by inside or outside observers. "Bureaucracy" is the term popularly used to label the phenomenon of an organization's administration working for illegitimate purposes or using illegitimate means. Thus, the meaning of "bureaucracy" goes far beyond the mere concept of form captured by the Weberian ideal type of legal authority (Weber 1968, pp. 220-221). Indeed, a major theme in Weber's own writings was the identification of the negative consequences, i.e. dysfuntions, that resulted from the increasing dominance of rational-legal administration (cf. Lindskoug 1979, sec. 4.2; Habermas 1981, p. 39). The dysfunctions treated by Weber have more to do with the illegitimacy of bureaucratic administration than its possible inefficiency due to trained incapacity, overconformity to rules etc. (see Weber's comments on bureaucracy in Prussia, 1968, pp. 1418-1419; cf. Merton 1957). As Albrow (1970, pp. 63-66) points out, Weber never intended his ideal type as a eulogy of efficiency.

To sum up, organizations are designed to produce certain desired effects with regard to efficiency and atmosphere; their function may be evaluated in relation to either one of these goals, or both. However, evaluations are made not only in terms of goal fulfilment, but also in terms of the legitimacy of the goals sought by the organization. The latter point bears significance for the discussion to follow.

The owners and the employees of an enterprise may agree in their evaluation of productivity and atmosphere, but still disagree with regard to the organization's legitimacy. The employees may prefer that the organization's resources be used for different purposes than the ones at hand. Also, interested parties outside the organization may see actions by its mandator (Abrahamsson 1977, p. 27) as harmful to various social goals. In other words, evaluations of an organization's legitimacy vary with regard to how mandator interests are perceived by relevant power holders. To a large extent, politics revolve around mandator legitimacy. Most notably, "economic democracy" denotes the transfer of mandatorship from the present private owners of industrial capital to the public or collectives of wage-earners (or to assemblies composed of representatives of both; cf. Meidner 1978).

The Problem

Organizations can be analyzed with regard to form or function, or both. The organization may be described in terms of formal characteristics, and variations in such characteristics may be related to variations in organizational function. For example, more or less hierarchical forms may be studied in terms of their effects on organizational efficiency. A problem arises however, due to the fact that organizational function often tends to be identified with a particular organizational form, i.e. hierarchy, as a matter of definition. Thus hierarchy is seen as a symptom of organizational functioning rather than a variable to be independently measured. Michels' "law of oligarchy" illustrates this problem.

In Political Parties (1958), Robert Michels argues that "organization implies the tendency to oligarchy". "In every organization, whether it be a political party, a professional union, or any other association of the kind, the aristocratic tendency manifests itself very clearly... As a result of organization, every party or professional union becomes divided into a minority of directors and a majority of directed" (1958, p. 37). And: "Who says organization, says oligarchy" (1958, p. 418).

According to Michels, "the aristocratic tendency" and "oligarchy" are ubiquitous and invariably associated with hierarchy. Indeed, hierarchy is oligarchy, and Michels does not detect any exceptions to this general rule. Now, "aristocratic tendencies" and "oligarchy" both imply tendencies for the organizational leadership to act in a repressive way vis-à-vis its followers. In Michels' usage these terms imply not only rule of the few over the many, but also the illegitimacy of such rule. Political Parties is not primarily a social scientific treatment of organizational mechanisms, but rather a political pamphlet directed against the German Social Democratic Party and the First International (see e.g. Michels' attacks on Ferdinand Lassalle and Karl Marx, 1958, pp. 201 and 204). The norm of democracy, however much proclaimed by the socialist, could never be implemented, according to Michels: it is even doubtful whether the socialists had ever intended to implement it. Michels' message, which at first sight appears to be a strict empirical observation of the intra-organizational development of form, actually hinges on an argument concerning function. Michels' observation of the tendencies of hierarchization in the German labor movement - which was correct - becomes, in the course of his discussion, interwoven with statements concerning the use of the hierarchic organization for illegitimate purposes. But the latter statements cannot be inferred from the mere existence of hierarchical organizational form. Their validity has to be verified independently.

Michels' "iron law" acquires its "iron" character due to a relatively simple definitional stratagem. His underlying premise is that the governance of democratic associations must be direct and participative, i.e. conform to the classic conception of democracy (see e.g. Schumpeter 1960, Gellner 1967, Pateman 1970, Rosner and Cohen 1979). All deviations from this scheme are treated as oligarchic tendencies: hence even syndicalist and anarchist organizations become oligarchic due to the very existence of elected leaders (1958, part V, chapters III and IV). If Michels had accepted representative forms as part of his notion of democracy, however, such deviations would not necessarily have been seen as examples of the "aristocratic tendencies", nor regarded as illegitimate. Only if representative democracy is seen as an incomplete and thwarted form of democracy can the appointment of delegates be regarded as something inherently negative. Thus, our acceptance of Michels' interpretation hinges to a large extent on our acceptance of his notion of democracy, a notion which posits an automatic connection between illegitimate

organizational function (aristocratic tendency) and hierarchical form (the existence of at least two layers of organization position).

Spontaneous-order Models and the Control Paradigm

Two contemporary approaches to organization theory exemplify the problem of direct relationship between form and function: spontaneous-order models and the control paradigm. In spontaneous-order models, hierarchy is seen as emerging as a result of disturbances of a natural system, made up of freely associating and contracting individuals. Spontaneous-order models have been developed at the macro as well as the micro level. In the macro variety, the system under observation is the society at large, and disturbances are associated with deliberate design, planning or, in general, organization. In its micro version, the spontaneous-order model applies to the individual enterprise: while organization per se is accepted, ways are sought to alleviate tendencies to formalization and "bureaucracy".

In the control paradigm hierarchy is seen as a result of the operation of certain illegitimate interests on the organization, i.e. hierarchy is perceived as a device used by some actor or power-group for purposes of domination and control. The control paradigm has been developed by Harry Braverman in Labor and Monopoly Capital (1974) and, more recently, by Martin Carnoy and Derek Shearer in Economic Democracy (1980).

F.A. Hayek and the Spontaneous Order

In Law, Legislation and Liberty, F.A. Hayek presents a thorough and excellent exposé of some major lines of thought in liberalism, which is especially useful because of its bearing on organization theory. Although supplemented with additional philosophical and legal theorems, Hayek's work can largely be read as a modern expansion of Adam Smith's notion of the "invisible hand".

Hayek's key term, which parallels Smith's, is "spontaneous order". It refers to the social connections into which individuals and organizations enter as acting units, and the phenomena that arise in the interaction of these units, making the rationality of the whole system transcend and surpass the rationality of each individual actor.

Thus, both individuals and organizations are subordinate to the social order of which they are parts. Commanding rules are not needed. This does not mean that the system is altogether without rules: some principles of a general nature are needed in order to protect private property and the freedom to act and make agreements. However, such rules must be carefully distinguished from those willfully constructed.

> In the terms we have adopted this means that the general rules of law that a spontaneous order rests on aim at an abstract order, the particular or concrete content of which is not known or foreseen by anyone; while the commands as well as the rules which govern an organization serve particular results aimed at by those who are in command of the organization.
> (1977, p. 21).

General libertarian rules are not the product of goaldirected behavior or planning. Rather, they develop in a chain of responses to specific events that demand the system's adaption. Thus they are the result of "particular effects and the frequency of their occurrence", and have emerged as consequences of a long "process of evolution" (1976, p. 21).

By contrast, the rules of organizations are commandlike: Hayek juxtaposes the "constructivist rationalism" of organizations to the market model (having clear positive connotations). Organizations are built on "isolated commands requiring specific actions" (1977, p. 51). Hayek's critical view of government intervention follows from this general theme. Too much government leads to "organization" and to "a society in which all the particular actions are commanded in accordance with a detailed plan" (1977, p. 144). In similar vein, Hayek criticizes Marxism for failing to understand how the selective development of different aspects of society has taken place through the price mechanism (1977, p. 170). Products, Hayek argues, must be distributed through the laws of the market, and not according to "some principle of justice". Naturally, he takes a critical stance against principles of equal distribution (1977, pp. 170-172). Decentralization and the spontaneous formation of coalitions (which require individual freedom to contract) constitute fundamental principles for social life. If there has to be hierarchy, it should be a "decentralized hierarchic structure on federal lines" (1979, p. 132, cf. 1979, p. 145).

Hayek's general distrust of organization and "constructivist rationalism" in abstracto is parallelled by similar distrust of concrete organizations and their accelerated growth, be they big enterprises or large public "administrative bureaucracies". Organizations impair a true understanding of the market order (1976, p. 134). Organized interests exert an illegitimate pressure on the state. Such "anti-social activities" are disruptive when carried out by private enterprise, but the principal threat arises from the organized activity of labor, which tends to destroy "the whole market order" (1979, pp. 143-145). As will be pointed out later with reference to Williamson (1975) "market" and "hierarchy" (terms that are closely related to Hayek's "spontaneous order" and "organization") may be seen as two principal alternative solutions to the problem of reducing transaction costs between individuals. In contrast to Hayek, however, Williamson does not postulate a priori that market solutions are inherently preferable to hierarchical ones.

Spontaneous-order Models in Organization Theory

Hayek's standpoint is not particularly fruitful from the perspective of those working with the everyday problems of management and organization, as e.g. enterprise executives. Organizations do exist, and have to be managed. But the market model and the notion of the spontaneous order have considerable attraction. What if one could devise management models that approximate organic systems rather than "constructivist rationalist" relations? Attempts to do precisely this have long been a primary concern of organization theory.

In general, these attempts take the form of alternatives to the traditional hierarchical ordering of positions and try to minimize formalization. They come in a variety of shapes and terminologies: some well-known examples are McGregor's Theory Y (McGregor 1960); Argyris' (1964) advocacy of "healthy", i.e. non-pyramidal organizations; Rheman's (1968) interest-balance model, copied on the March and Simon inducement-contribution theory (March & Simon 1959); and Minzberg's (1979) notion of "adhocracy". All of these theories can be seen as attempts to overcome traits that most modern, large-scale organizations have in common: steep hierarchical structure, vertical rather than horizontal communication, detailed distribution of tasks, and centralized command. For example, Minzberg describes "adhocracy" as an organizational form that challenges most of the characteristics of "the machine bureaucracy". "Adhocracy"

is an innovative organization: therefore, it must "avoid all the trapping of bureaucratic structure, notably sharp divisions of labor, extensive unit differentiation, highly formalized behavior, and an emphasis on planning and control systems" (1979, p. 433). Coordination cannot be left to planning, and has to be brought about through intensive interaction. The organization should be "self-renewing", and "organic" and ought to have "tent" rather than "palace" properties (a tent can be easily taken down and moved to another location, cf. Hedberg et al. 1976, p. 45). "In essence", writes Minzberg, "adhocracy is the only structure for those who believe in more democracy with less bureaucracy" (1979, p. 460).

Whether in form of Hayek's critique of planning and central administration or Minzberg's "adhocracy", spontaneous-order models assume a close relationship between, on the one hand, hierarchy and, on the other, various organizational dysfunctions. For Hayek as well as the organization analysts cited above, hierarchy is clearly inconsistent with democracy. To Hayek, democracy is intimately bound up with decentralization and individual freedom to contract; to Minzberg and others, it is bound up with broken-down authority structures and the reduction of formal organizational characteristics.

The Control Paradigm I: Braverman's Labor and Monopoly Capital

Marxist scholars tend to treat "bureaucracy" as an organizational complement to the power exerted by the capitalist class. The state, the army, the police and salaried officials express and mediate the class interests of the bourgeoisie. Bureaucracy cannot be studied independently of the general relations of domination in society, since its function is intimately tied up with the function of the state as a vehicle of class rule. The elimination of bureaucracy is, therefore, inexorably connected with the elimination of capitalism itself. The roots of this discussion can be found in Marx's work on the Civil War in France especially his account of the Paris Commune, and were later developed by Lenin in State and Revolution. (Some modifications have subsequently been made by introducing the term "relative autonomy"; see e.g. Poulantzas 1975, Erik Olin Wright 1979. These modifications, however, have not altered the premise that bureaucracy is a specifically capitalist phenomenon.)

With Braverman's Labor and Monopoly Capital, the Marxist conception of bureaucracy is extended to the analysis of intraorganizational work processes. According to Braverman, bureaucracy should not be seen as endemic to "large-scale" or "complex" enterprises: "it is better understood as the specific product of the capitalist organization of work, and reflects not primarily scale but social antagonisms" (1974, p. 120).

Bureaucratization is not just a question of continuous job specialization or administrative routinization of office work. Human labor is degraded because monopoly capital has an ever present need to increase its control over productive resources and, thereby, secure the conditions for capital accumulation. Three principles govern the degradation of work: the dissociation of the labor process from the skills of the workers (1974, pp. 112-113), the separation of conception from execution (1974, p. 114), and the use of management's monopoly over knowledge to control each step of the labor process and its mode of execution (1974, p. 119).

Evidently, Braverman sees bureaucratization as an aspect of the process of work degradation and gradual transmission of knowledge into the hands of management. He defines "bureaucracy" as a clear dominance relationship, an organizational device consciously created by capitalism (cf. 1974, pp. 72-73).

It is hardly surprising, therefore, that Braverman also posits a strong connection between capitalist production relations and Scientific Management. Indeed, he almost identifies Taylorism with capitalism. "The purpose of my book", says Braverman, "is the study of the labor processes of capitalist society, and the specific manners in which these are formed by capitalist property relations. /These processes have also been imitated 'by the hybrid societies of the Soviet bloc', which would merit a particular study/. But since this mode of production was created by capitalism and not by Sovietism, where it is only a reflexive, imitative, and one hopes transitional form, it is with capitalism that the study of the labor process must begin" (1974, p. 24).

The division of labor in the workshop, Scientific Management, bureaucracy, and capitalist planning and control are intimately connected concepts in Braverman's work. It is difficult to see any way whereby the form of work organization could be theoretically dissociated from the organization's functions. The division of labor in the form of Taylorism bears witness of the domination and exploitation that characterize the

function of the capitalist enterprise, and Taylorism is in its essence antagonistic to socialist principles. Its appearance in the Soviet Union is only "reflexive", "imitative" and "transitional". (Interestingly, Lenin and Trotsky found it far more easy to keep form and function separate; while emphasizing the need to study Taylorism, they also saw it as subordinated to class interests. See Merkle 1980, pp. 113-131.)

The Control Paradigm II: Carnoy and Shearer

A similar a priori connection between capitalism and hierarchical work organization is posited by Carnoy and Shearer in their recent book, Economic Democracy (1980). The authors aim to present an alternative and progressive model for American politics, "the transfer of economic decisionmaking from the few to the many" (1980, p. 3). Decentralization constitutes a key feature of the system of economic democracy that they advocate, and stands in direct contradiction to capitalism which is associated with centralization and hierarchy. For example, Carnoy and Shearer argue that the introduction of workers' control of production would lead to "less intensive use of capital (which they view as desirable) than the present hierarchical arrangement" (p. 131). In discussing what nationalization of industry means for economic democracy, they take a pessimistic view because "nationalized firms are usually just as hierarchical as private capitalist firms" (p. 126). Further: "Is capitalist hierarchy to blame, or is industrial production alienating no matter what the system of organization?" (p. 27). And one last example: "As long as French managers are trained in élitist engineering schools it is highly unlikely that they will participate willingly in the development of non-hierarchical modes of decisionmaking for French public enterprises" (pp. 44-45; my italics). In other words, hierarchy and economic democracy are antithetical, and in order to achieve the latter one would have to break down the former. Thus, according to Carnoy and Shearer, the democratic system will not function properly if managed through traditional hierarchical organizations. Again, the existence of hierarchy is itself a criterion of organizational dysfunction.

Claims Raised by Spontaneous-order Models and the Control Paradigm

The two types of theory commented on above make partly similar claims, despite their wide divergencies on the causes of organizational dysfunctions. They both uphold the promise of an end to domination of the

individual by forces beyond his control. The individual is to achieve control over his life situation either by individual market contracting (Hayek) or by collective action aiming at workers' control and economic democracy (Braverman, Carnoy and Shearer). Both cases rest heavily on the assumption that hierarchies can be broken down and decentralization be achieved: for decentralization is, almost by definition, democratic.

An Alternative Approach: Separating Organizational Form and Function

The rational model of organization sees the organization as a social structure which has been established by a certain person, group, or class (in general: mandators) in order to implement certain goals. Organizations are instruments for the pursuit of rational action motivated by mandator interests (Abrahamsson 1977, p. 11).

It is reasonable to assume that the mandator will attempt to use the kind of organizational form which best contributes to the fulfilment of his particular goals. The mandator's degree of freedom is limited, however, since his choice of means is often subordinated to restrictions stemming from various "inner logic" mechanisms (Abrahamsson 1977, pp. 35-37). The existence of those mechanisms both questions the possibility of eliminating hierarchy and focuses attention on the need for research on how organizational instruments are used rather than how they are shaped, i.e., emphasize the need to separate function from form.

The "Inner Logics" of Organization: Hierarchical Pressures

Some of the main arguments in support of the "inner logic" interpretation of hierarchy have been put forward by Peter Abell, R.A. Dahl, and Oliver E. Williamson. Abell formulates the problem in the following - somewhat polemic - way:

> 'Come the revolution' - we are frequently told - the hierarchical social structures will disappear; in the free democratic society the need for such structures, which are essentially the repressive instruments of those in power, will no longer exist. Accordingly, hierarchy will be relegated to the prehistory of mankind and we can look forward to the wholly edifying spectacle of men and women coming together in freely formed associations carrying out their business in the spirit of equality, mutual respect and freedom. (1979, p. 141).

The major question for Abell is whether an organization based upon genuine democratic principles implies a non-hierarchical structure. His answer is no: democracy and hierarchy are not irreconcilable. A democratic organization will often find hierarchy both useful and necessary. Hierarchy, Abell points out, is a structure which maintains overall connectivity by a minimum number of relations. Since the maintenance of relations is a costly activity, and since the members of an organization often will agree that costs should be minimized for the benefit of all, it is rational for them to decide to establish a hierarchy. "In a world where (a) coordination is necessary and (b) the maintenance of relationships is costly, hierarchical trees are minimal cost structures" (Abell 1979, p. 146). In any democratic organization the principles of absolute political equality must, of course, take precedence over cost principles (or similar ones, such as the principles of indirect representation, special competence, and efficiency). The latter may be seen as constraints upon the principle of participative and political equality (Abell 1979, p. 149). Any organization, including a democratic one such as the self-managing enterprise, is subject to cost restrictions which promote the establishment of hierarchical structures through, e.g., delegation and representation. One can probably assume that the members of a democratic organization will realize just that in the course of their deliberations.

Furthermore, the principle of participative equality itself contains endemic constraints that are considerable. As Dahl (1970) has shown, the full realization of this principle requires that collective decision-making groups be highly limited in size.

> What many people would regard as the most perfect form of democracy, I imagine, exists within a given set of persons when every person in that set has a full and equal opportunity to paricipate in all decisions and in all the processes of influence, persuasion, and discussion that bear on every decision. It is easy to see that this form of democracy can exist only among a very small number of people. If you have any doubts, a simple arithmetical exercise should convince you at once. Let t be the total amount of time available for participation (for discussion, for example), h the share of time available for each participant. Then p equals t/h. For example, if you have six hours set aside for discussion and voting and wish to allow each participant a half hour, then not more than a dozen persons can participate in the decision.
> (Dahl 1979, pp. 67-68).

The restrictions for moderately-sized and large organizations (i.e., a few dozen participants or more) are such that if the principle of participative equality is observed, almost no one will be able to convey his message to the others due to lack of time.

The reader may object that in reality the practical problems of participative equality are solved spontaneously. Most members are silent and leave the talking to a minority of more active participants. Also, the number of relevant arguments is usually smaller than the number of members; hence everyone does not need to speak in order for all arguments to be presented. However, these "spontaneous" solutions are nothing else than the introduction of the hierarchical principle; participation is delegated to a minority. Since this process takes place without explicit agreement and consensus, its democratic nature may well be disputed.

Hierarchical Pressures from Self-interest Seeking

In a group aspiring to be non-structured and non-authoritarian ("peer groups", Williamson 1975, pp. 41-42) pressures towards hierarchy may arise due to various forms of self-interest seeking. "In comparison with both market and hierarchical organization, peer groups, being loose metering structures, are vulnerable to free rider abuses" (Williamson 1975, p. 45). Such groups, therefore, will often have to devise auditing and sanctioning procedures in order to enforce agreed-upon rules. In the theoretical literature on workers' self-management, this complication is sometimes assumed away by postulating that a new system, "after the revolution", will be founded on altruism (Kolm 1977; cf. Abell 1979, pp. 149-160). The classical restriction in economic theory, i.e., that man is basically profit-seeking and egoistic, is thus replaced by the assumption of maximum generosity.

Even though a critical stance against the altruism postulate is warranted, we do not have to assume that egoism is a basic human characteristic. The would-be constitution for the Good Society (or any sub-group thereof, such as a self-managed organization) has to include rules for what to do when someone acts opportunistically, breaking peer-group expectations. Such rules need not imply a rejection of the notion that the vast majority of the participants are basically non-opportunistic. As a matter of fact, this is how most democratic systems operate: the

law is there to be used against the exceptional norm-breaker. Nevertheless, safeguards against self-interest seeking exert pressures toward hierarchy, and lead to deviations from the simple peer-group structure.

Taylorism and the Economy of Transaction Costs

Hierarchies and markets constitute alternative ways of solving transactional problems.

> Whereas market transactions involve exchange between autonomous economic entities - the study of which exchanges is the familiar object of microeconomic analysis - hierarchical transactions are ones for which a single administrative entity spans both sides of the transaction, some form of subordination prevails, and typically, consolidated ownership obtains.
> (Williamson 1975, p. xi).

In cases where prices do not provide adequate information, for example, a substitution of internal organization (hierarchy) for market-mediated exchange may occur. Facing uncertainties as to what are relevant prices, "the firm becomes a sole source supplier to itself for those transactions that are shifted out of the market and into the firm; relevant prices are known or, in any event, bids are presumably solicited less frequently as a result". Also, the employment contract may entail gains compared to market contracting: "the firm substitutes a single incomplete contract (an employment agreement) for many complete ones. Such incomplete contracts purportedly economize on the 'cost of negotiating and concluding' separate contracts" (Williamson 1975, p. 4, referring to Coase 1937, p. 336).

The market/hierarchy dichotomy casts new light on the issues raised by the familiar critique of Taylorism in social science.[1)]

> Pin manufacture involves a series of technologically distinct operations (wire strengthening, cutting, pointing, grinding, and so forth). In principle, each of these activities could be performed by an independent specialist, and work could be passed from station to station by contract. The introduction of buffer inventories at each station, moreover, would decrease the coordination requirements and thereby reduce contractual complexity. Each worker could then proceed at his own pace, subject only to the condition that he maintain his buffer inventory at some minimum level. A series of independent entrepreneurs rather than a group of employees, each subject to an authority relation, would thus perform the tasks in question.
> (Williamson 1975, p. 50).

1) For some examples, see Friedmann (1955, p. 58-ff), Blauner (1964), Argyris (1964), Braverman (1974), Sandberg (1980, pp. 92-97).

However, there are transaction costs which militate against such an organization of tasks.

> For one thing, it may be possible to economize on buffer inventories by having the entire group act as a unit, under common direction, with respect to such matters as work breaks, variable rates of production, etc. Although this could be worked out in advance and made explicit in the contract, or the authority to make such decisions could be rotated among the members of the group, the matter might usefully be assigned to a "boss", who oversees and coordinates the entire operation and can more easily judge the fatigue and related work attitudes in the group. (Williamson 1975, p. 51).

More important, yet, is the problem of keeping up the adaptability of the work organization as a whole.

> Suppose one of the individuals becomes ill or injured. Who nominates and chooses a replacement, or otherwise arranges to pick up the slack, and how is compensation determined? Reaching agreement on such matters is apt to be relatively costly in relation to having a boss reassign the work among the members on the group's behalf. Similarly, what is to be done if an individual declines to deliver the requisite quantity or quality to the next station? How are penalties determined? Litigation is apt to be costly and time consuming, and to what avail, if the individual lacks the requisite assets to compensate for the losses attributable to his deviant behavior? .../Hierarchy/ and an employment relationship commonly yield transactional economies in adaptability and dispute settling respects. (1975, p. 51).

Williamson's observations are relevant, e.g., to Braverman's argument that Taylorism is essentially a capitalist form of domination. They emphasize that hierarchical transaction cost-solutions to a large extent are of an inner-logic character. If we accept this view we also must question both the "capitalist" and "reflexive, imitative" character of Scientific Management methods as they appear in today's industrial society (for example, in the form of computerized production processes). Indeed, there seems to be little reason why <u>any</u> work organization concerned about cutting production costs should shun hierarchical work arrangements. This would especially apply to worker-managed firms since they are often formed in emergency situations after the previous private owners have decided that the profits did not meet their expectations (cf. Zwerdling 1979).

Thus, as we have seen, the explanation of the emergence and existence of hierarchy and division of labor does not require assumptions about

what function the hierarchical form performs in relation to particular mandator interests. The organization generates its own inner transformations toward hierarchy. However law-like this statement may seem, it differs from Michels' "iron law or oligarchy" in a critical respect. For the appearance of hierarchy in organizations is one thing, its use for illegitimate or oppressive purposes quite another.

Discussion

The need to view organizational form and function independently of one another follows from the recognition of "inner-logic" mechanisms. The existence of such mechanisms requires that hypotheses concerning the alleged exploitative functions of hierarchy be qualified as to the empirical circumstances in which such exploitation occurs. Hierarchy can certainly be used for oppression and exploitation; but the existence of such illegitimate behaviors in an hierarchic organization does not prove that they are caused by the hierarchical form. Proposals for political and organizational reform are often expressed as models for the reduction of hierarchy. The primary criterion of successful reform, however, cannot be the disappearance of a particular organizational form (if this is at all possible). Reforms must rather be judged by changes in organizational function, e.g. by increased productivity, the reduction of alienation, or the increase of work motivation. Many other factors beside hierarchy are related to such functional variations; e.g., styles of leadership, presence or absence of sufficient physical resources, the perceived legitimacy of goals, and the participants' access to mandator positions.

Since it involves the solution of key distributive issues, access to mandator position is likely to be more significant than organizational form for the way an organization functions. Organizational legitimacy rests, above all, on the democratic control of distribution. Distributive issues are of a qualitatively different kind than organizational form issues. For purposes of illustration, let us compare worker-owned and privately owned enterprises.

Organizations face two kinds of distribution problems: one concerns the distribution of income, resulting from the organizations' productions, and the other concerns the distribution of people over the various hierarchical positions in the firm.

Although hierarchical modes for economizing on transactions may be just as sensible in worker-managed firms as in privately owned enterprises, questions of distribution lack this comparability. Whereas, typically, the shareholders of the capitalist form choose to delegate both questions of wage distribution and task assignments to the executive (i.e., the management), in the labor-managed firm these issues tend to be resolved at the mandatorial level.

Distribution of income. In contrast to the capitalist enterprise, the participants in a worker-managed firm have the constitutional right to make decisions on the allocation of income to wages, investments and general-purpose funds. The one man/one vote principle may not appear as an observable fact to the casual visitor to a group of lathe operators or auto body assemblers. Nevertheless, it makes a difference: the lathe operator and the assembly-line worker will be a participant in decisions in which the necessary trade-offs between efficiency and other goals are made.

The worker-managed firm may decide to sacrifice "metering" for "atmosphere" (cf. Williamson 1975, p. 37-f, 45); in other words, choose informal interaction and, possibly, equal hourly wages before formal task subdivision, piece-rate payment and close supervision. A capitalist firm may do the same (cf. the abundance of human relations programmes, QWL-schemes, "quality circles", and the like; see e.g. Goldman & Van Houten 1980), but only if its mandator expects that economic gains in "atmosphere" will outweigh losses in "metering". Thus, both "atmosphere" and "metering" are subordinated to the general goal of profit maximization.

For the worker-managed firm, however, "atmosphere" and involvement will be goals in themselves, goals which may be treated on an equal basis with profitmaking. The possible costs incurred through a decision to go easy on hierarchy will achieve legitimation by the very process of democratic majority rule. By way of contrast, the managers of the private firm will always run the risk that the cost of a human relations programme ex post will appear unwarranted to the capital owners. Simple increases in group cohesion among the workers in such a situation cannot be used as an argument by the executive for the wisdom of the decision. On the contrary, group cohesion among workers may well appear as a threat to the owners of the firm.

Assignment of personnel. The distribution of personnel over hierarchical positions also takes on a different quality when the mandator is a collective of wage-earners. As Williamson points out, hierarchy tends to weaken involvement. However, the peer group structure is not necessarily violated by the hierarchy if "everyone is given a full turn at the center" (Williamson 1975, p. 47), i.e., if a rotation system is implemented. But rotation also entails cost. Talent, information, and expertise are not uniformly distributed among the organization's participants. Again, only a democratic association can make a decision which legitimately balances rotation and hierarchy.

Decisions by fiat are perforce unbalanced and run the risk of either obstruction by the persons who are the objects of the rotation (or non-rotation) or ex post accusations of wastefulness by the mandator. Only to the democratic work organization will solidarity (rotation, equal distribution) and profit-maximization appear as alternative, comparable, and sometimes, interchangeable values. And only the democratic organization has the incentive to subordinate the latter to the former.

The above argument implies that schemes for redesigning organizations should be evaluated with regard to their allowance for majority control of mandator positions - since it is here that issues of distribution have to be resolved - rather than the reduction of hierarchy per se. The probability that such schemes will be thwarted by "inner logics" is high. The existence of hierarchy is not equal to the non-existence of democracy, and the elimination of bureaucracy must take place through the control of administration by the mandator rather than through attempts to eliminate hierarchy.

The elimination of bureaucracy presupposes mandator control. "Bureaucracy" refers to the functional relationship between the mandator and its executive; and the central object of the analysis of bureaucracy may be stated as the problem of getting the executive to govern the organization according to the wishes and ambitions of its mandator (Abrahamsson 1977, p. 26). In order to decide whether a particular administrative group is bureaucratic or not, we need to know how it fulfils its mandate vis-à-vis those from whom the mandate originates.

Mere knowledge of technical criteria - hierarchy of offices, ways of selecting candidates, methods of remuneration etc. according to Weber's ideal type - does not suffice to call an administration a "bureaucracy".

Finally, if the "inner-logic" thesis is accepted, to criticize organizations for adopting Taylorist work methods is often pointless. The hierarchical, functionally divided and centrally coordinated organizational form can be applied even by democratic work organizations such as labor-managed enterprises. "After the revolution" - to look back on the general theses by Dahl and Abell - we may well find that the old hierarchical structure in our work organization remains. But was the revolution about organizational form in the first place?

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THE SCHOOL IN THE PERSPECTIVE OF ORGANIZATION THEORY: SOME IMPLICATIONS FOR PLANNED EDUCATIONAL CHANGE

Introduction

According to several authors (for example, Derr, 1976; Fullan, Miles, and Taylor, 1980; Berg, 1981), schools have special properties, and present special problems, which must be taken into account in the planning of change in educational settings. Unfortunately, there is no, or only a limited, consensus concerning what these specific properties are.

While the school according to certain authors is described as an orderly and rational bureaucracy, characterized by a hierarchical and coordinated structure (Bidwell, 1965; Shipman, 1968; Banks, 1976; Berg, 1981), others have focused their descriptions on the ambiguity (March and Olsen, 1976) and the foolishness (March, 1976) that are assumed to characterize the loosely coupled (Weick, 1976; Katz, 1964; Bidwell, 1965) and anarchic (Cohen, March, and Olsen, 1972) world of the school.

In addition, however, there is also a split between those portraying the school as a socio-cultural system held together by a network of informal interpersonal relations, shared goals, and a common organizational culture (Sarason, 1971; Alderfer and Brown, 1975; Ekholm, 1976), and those viewing the school as a political entity, characterized by conflicts, power struggles, and bargaining among interest groups and subunits as normal ingredients of organizational life (Baldridge, 1971; Isling, 1980; Sandkull, 1981). That is, there is a split between a consensus and a conflict view of educational organizations.

In this paper, an attempt is made to probe somewhat further into the analysis of the school as an organization. This is done by explicating four organizational models corresponding to the four views of the organizational reality of schools that were mentioned above. Furthermore, using these four models as a point of departure, some possible relationships between organizational models and strategies of planned educational change are explored. Finally, an integrative framework for the analysis of the school as an organization is outlined. This

integrative framework includes elements from all of the four organizational models distinguished in this paper. In conclusion, the proposed integrative framework is used as an argument in favor of a comprehensive multifaceted strategy of planned educational change.

THE SCHOOL AS AN ORGANIZATION: FOUR MODELS OF ANALYSIS

The notion of an organizational model refers to a set of assumptions, or a research orientation, concerning organizational reality. In other words, an organizational model has the character of a conceptual scheme, which can be used for descriptive and analytical purposes.

In the text below, four organizational models are described. The four models are called the rational, the political, the social system, and the anarchistic model, respectively. For each of the models, the description will focus on the assumptions made concerning organizational processes, primarily processes of decision making and change. Matters concerning organizational structure and design are touched upon only in so far as they have clear implications for process aspects of organizations.

The Rational Model

The rational model of organizations is conceptually tied to the assumption that organizations can be characterized in terms of a set of goals or preferences. Organizations are viewed as purposefully designed instruments (means) for the pursuit of the goals or the intentions of some dominant actor or coalition of actors (Gouldner, 1959; Allison, 1971; Georgiou, 1973; Abrahamsson, 1975). In accordance with this instrumental view, organizational action is assumed to be an outcome of deliberate calculation and purposive choice on the part of some actor (Allison, 1971). Thus, organizational change is conceived of, a priori, as planned, rather than unplanned, natural change.

The rational model puts heavy demands on the formalization of organizational structure in the direction of clearly specified roles and procedures (Gouldner, 1959). Furthermore, it presupposes a set of clear and consistent goals; a certain consensus concerning the goals; and an explicit and well understood technology and knowledge base for the choice of activities (means) for the achievement of the shared goals (March and Simon, 1950; Thompson, 1967; Pfeffer, 1981).

As is nowadays generally accepted, the rational model has serious limitations both as a descriptive and as a normative model of organizational action (March and Simon, 1958; Lindblom, 1959; Georgiou, 1973; Benson, 1977). To a considerable extent, the criticism has focused on the presumptions of rationality made by the model. Several authors have noted the limitations on organizational rationality due either to limits on the cognitive capacity of the individual (March and Simon, 1958; Braybrooke and Lindblom, 1970; March, 1978), or to unfavorable organizational conditions (Cohen, March, and Olsen, 1972; March and Olsen, 1976).

However, in spite of the severe criticism that has been leveled against the rational model and its derivatives, its fundamental elements have, to a large extent, been retained as the predominant mode of organizational analysis (Georgiou, 1973; Benson, 1977). Assumptions consistent with the rational model have been applied to the organizational analysis of schools by, for example, Shipman (1968), Banks (1976), and, more recently, by Berg (1981).

The Political Model

In many organizations, including schools, the heavy demands put on the organization by the rational model are probably far from being realized. Particularly in the case of schools, the diversity of interests and the lack of consistent and shared goals have been noticed (Baldridge, 1971; March and Olsen, 1976; Berg, 1981). Under these conditions, it has been hypothesized that organizations are best understood as political entities (March and Simon, 1958; Cyert and March, 1963; Pettingrew, 1973; Pfeffer, 1981). That is, as a system of interacting individuals and subgroups pursuing different interests, demands, and ideologies through the use of power and other resources.

Accordingly, the degree to which a certain actor succeeds in furthering his interests or ideology is assumed to be determined by the amounts of power and other resources that he is able to mobilize relative to competing actors (Pfeffer, 1981). Furthermore, it is hypothesized that analytical-rational modes of problem solving and conflict resolution are replaced by problem solving activities characterized by bargaining and compromise (March and Simon, 1958). Thus, in contrast to the rational

model, the political model views conflict rather than consensus as a normal aspect of organizational life (Pfeffer, 1981).

Applications of a political model to the study of educational organizations are made by, for example, Baldridge (1971), Pfeffer and Salancik (1974), Isling (1980), and Sandkull (1981).

The Social System Model

The social system model can be described as an application of general systems theory to the study of organizations (Miller and Rice, 1967; Katz and Kahn, 1978).

In contrast both to the rational and to the political model, the social system model views organizational processes as an outcome of spontaneous, adaptive responses to external or internal demands, rather than the result of intentional action. Thus, while the former models emphasize intention, rationality and formal organization, the social system model emphasizes the emergent and unplanned aspects that are assumed to characterize the informal organization (Gouldner, 1959; Abrahamsson, 1975).

By implication, according to the social system model organizational change is viewed, not as the product of intentional action, but as spontaneous adaptations to changing internal or external conditions. According to this model, then, the rationalistic notion of planned change becomes problematic.

Another characteristic of the social system model is its emphasis on integration and interdependence between system elements as a basic property of social system. The base of this integration is assumed to be of a social psychological nature. More specifically, it comprises: roles, norms, and the cultural system of values and ideology that justify the roles and the norms (Katz and Kahn, 1978).

Thus, according to the social system model, what is sometimes called organizational culture or climate is an important determinant of organizational processes. Consequently, in order to change such processes the important thing to do would be to try to alter the norms, values, belief systems, interpersonal relations etc. That is, to change the organizational culture.

Outside the organization development (OD) movement (for example, Alderfer and Brown, 1975; Schmuck et al., 1977; Miles, Fullan and Taylor, 1981), relatively few attempts have been made to apply a social system model to the study of schools (for example, Gross et al., 1971; Bentzen, 1974; Richardson, 1973; Ekholm, 1976).

The Anarchistic Model

What is here called the anarchistic model is far less than the three models described above a coherent set of concepts or assumptions concerning organizations. Rather, the term is used here as a summary term covering a set of different concepts, propositions, and metaphors proposed by different authors.

In the text below, the anarchistic model is described using three of its most well-known notions as a point of departure. That is, the metaphors of organized anarchies (Cohen, March, and Olsen, 1972; Cohen and March, 1974), garbage cans (Cohen, March, and Olsen, 1972), and loosely coupled systems (Weick, 1976).

1. The Metaphor of Organized Anarchy

As argued by Cohen, March, and Olsen (1972), any organization, although particularly educational and public organizations, can, at least partly, be understood as an organized anarchy. This metaphor refers to organizations with three general characterstics (Cohen, March, and Olsen, 1972). Firstly, there are inconsistent and illdefined goals and preferences. As stated by Cohen, March, and Olsen (1972), an organization "discovers preferences through action more than it acts on the basis of preferences" (p. 1). Consequently, the intentionality of organizational action becomes problematic. Secondly, organizational processes and technology are unclear or poorly understood by the members of the organization. Thirdly, there is fluid and part-time participation. The members of the organization "vary in the amount of time and effort they devote to different domains; involvement varies from one time to another" (Cohen, March, and Olsen, 1972, p. 1).

The three properties of organized anarchies mentioned above are characterized by March and Olsen (1976) as three kinds of organizational ambiguity. To these three properties March and Olsen (1976) add

a fourth kind of ambiguity, namely, the ambiguity of history. That is, the tendency of organization members to selectively reconstruct and distort organizational events in the past. As observed by March and Olsen (1976): "What happened, why it happened, and whether it had happened are all problematic" (p. 12).

2. The Garbage Can Metaphor

An important implication of the anarchic view of organizations is the assumed lack of intentionality of organizational action. This assumption is manifested in the garbage can model of organizational choice (Cohen, March, and Olsen, 1972).

According to this metaphorical notion, opportunities for organizational problem solving and choice are viewed as garbage cans into which various issues, problems, and solutions are dumped by the participants (Cohen, March, and Olsen, 1972). In contrast to traditional, analytical-rational conceptions of problem solving and decision making in organizations these processes are not assumed to follow a rational and orderly sequence of phases, from indentification and definition of problem to choice and implementation of solution. Rather, a decision is viewed as an outcome: "of several relatively independent streams within an organization" (Cohen, March, and Olsen, 1972, p. 2).

More specifically, organizational choice is viewed as an outcome of four such streams consisting of problems, solutions, participants, and choice opportunities. Thus, if the garbage can model is correct, organizational processes are, to a large extent, determined by accidental streams of events. The concepts of intention and goal are largely ignored, or given a problematic status as antecedents of organizational action. Instead, goals, plans, and policy statements are viewed as symbols, advertisements, games, or, simply, as excuses for interaction (Cohen and March, 1974).

3. The Loose Coupling Metaphor

A basic assumption of the social system model as interpreted above is the idea of a fundamental integration and interdependence between the elements of an organization. This idea is strongly ques-

tioned by the anarchistic model. Instead, proponents of the latter model (Weick, 1976; 1979; March and Olsen, 1976) have described organizations, especially educational organizations, as loosely coupled systems (Weick, 1976). According to this metaphor, the elements of an organization are only weakly connected to each other. As examples of such loose couplings within schools are mentioned: intention and action; processes and outcomes; administrators and teachers; teachers and teachers; teachers and pupils (Weick, 1976).

The loose coupling metaphor is closely allied to what March and Simon (1958) call an empty world. That is, a world "in which most events are unrelated to most other events; causal connections are exceptional and not common" (p. 176). It also has strong affinities with the notion of structural looseness (Bidwell, 1965), and what Katz (1964) calls the autonomy structure of schools.

As should be clear from the brief presentation of the anarchistic model given above, this model, in contrast to the other three models presented in this section, is based primarily on data from educational settings (cf. Cohen and March, 1974; March and Olsen, 1976). Thus, in the search for a model of the school as an organization, the anarchistic model should be considered as a qualified candidate.

ON THE RELATIONSHIPS BETWEEN ORGANIZATIONAL MODELS AND STRATEGIES OF PLANNED EDUCATIONAL CHANGE

According to a widely held view, organizational action is based, implicitly or explicitly, on some model concerning organizational reality (compare, for example, Argyris and Schon, 1978).

Applied to the specific class of organizational action that includes change and innovation efforts, the above stated assumption implies that different strategies of change presuppose different models of organizations, and conversely: that different organizational models imply different strategies of change. That is, that there is a logical-conceptual connection between organizational models and strategies of planned change.

In this section, an attempt is made to explore these conceptual ties.

This is done by examining to what extent the four models of organizations that were distinguished above imply different prescriptions for planned educational change.

At least at a surface level of inquiry, each of the four organizational models seems to have quite different implications for planned change. Some of the possible relationships between organizational models, strategies, and hypothesized mechanisms of change are presented in Table 1.

Table 1: Possible Relationships Between Organizational Models, Mechanisms, and Strategies of Planned Educational Change

Organizational Model	Mechanisms of Change	Strategy of Change
The Rational Model	Intellectual analysis. Production and dissemination of knowledge.	The Empirical-Rational Strategy (e.g., the R & D model)
The Political Model	Social interaction Exercise of power Bargaining. Coercion.	The Political-Administrative Strategy (e.g., legislation)
The Social System Model	Organizational culture, norms, feelings, interpersonal relations	The Normative-Reeducative Strategy (e.g., OD, HRD)
The Anarchistic Model	Creation of garbage cans. Building coalitions. Increased participation. Ad hoc planning Time and effort	The Participative Self-Regenerative Strategy (e.g., self-designing organizations)

As is clear from Table 1, it seems possible to establish a one-to-one correspondence between, on the one hand, different organizational models, and strategies of planned change, on the other.

The rational model is assumed to imply an empirical-rational strategy of change (Chin and Benne, 1969). That is, it implies a strategy of change that emphasizes analytical methods of problem solving and planning, and the production and dissemination of knowledge and information as important mechanisms for accomplishing organizational change. Most models within this tradition are rationalistic in a classical sense of the term. That is, the process of organizational change is construed as some more or ledd orderly sequence of stages including recognition of needs, diagnosis of problems, search for solutions, and, then, a careful consideration of several well-defined alternative courses of action (compare, Havelock, 1975). An example of this strategy is the well-known research and development model (the R & D model) (see, for example, Havelock, 1975).

The political model is conceptually tied to a political-administrative strategy of change (Ellström, 1982). According to this strategy, change is assumed to take place through the exercise of power and authority on the part of some dominant, formal or informal, elite group. The mechanisms that are assumed to be involved in the process of change include conflict, political struggle, bargaining, and compromise (Pettigrew, 1975; Pfeffer, 1981). A common instance of a political-administrative model is the use of legislation and allocation of resources as means of accomplishing change in a social system. Often this strategy is based on the use of unilateral authority and power in order to introduce change. That is, change is assumed to take place by one-way announcements from the top downward to the lower levels of the organization. Of course, interpreted in this way, the political-administrative model comes close to what Chin and Benne (1969) call the power-coercive strategy of change.

The social system model is closely related to another of the well-known strategies of change proposed by Chin and Benne (1969), namely the normative-reeducative strategy. In terms of this strategy, change in cultural, ideological or interpersonal aspects of organizations are important mediators of organizational change. It may be noted, however,

that many members of the normative-reeducative family of strategies also have elements in common with the empirical-rational strategy, for example, the use of analytical-rational methods of problem solving and planning (compare, French and Bell, 1978; Havelock, 1975). Examples of the normative-reeducative strategy are different methods of organization development (OD) (compare, Schmuck et al., 1977; French and Bell, 1978).

Concerning the anarchistic model, its normative implications for organizational change are far less developed than those of the other three models described above. Thus, there is no obvious candidate for the role of an anarchistic strategy of change. There are, however, fragments of such a strategy (see, for example, Cohen and March, 1974; March, 1976, 1981; Hedberg et al., 1976; Sandberg, 1976). Although these fragments are different in several respects, they have in common a focus on at least one or several of the following hypothesized mechanisms of change: (a) the creation of opportunities for change through the provision of behavioral settings, that is, garbage cans, that may set the occasion for problem solving and change; (b) increased member participation in organizational decision-making; (c) tightening of loosely coupled elements in the system, for example, through the creation of coalitions, networks, and new structures (compare the idea of a collateral organization proposed by Zand, 1981); (d) an emphasis on ad hoc strategies of planning, and a loyalty to action rather than to pre-existent plans and goals, that is, an emphasis on a proactive, make-it-happen posture with elements of what March (1976) calls a technology of sensible foolishness; and (e) the investment of time, effort, and persistence (which are assumed to be scarce resources in the presumed low-energy world of an organized anarchy, compare Cohen and March, 1974) on the part of the participants in a planned change effort.

An attempt to conceptualize at least some of the mechanisms of change implied by the anarchistic model is made by the notion of a participative self-regenerative strategy of planned educational change (Ellström, 1982). According to this strategy, planned educational change is viewed, firstly, as based on decentralized, local processes of change rather than on centrally issued decrees. Secondly, the process of planned

change is based on the day-to-day activities of the members of the organization, and, thus, carried out as part of, or closely related to, the ongoing work process of the organization (compare, March, 1981). Thirdly, the process of problem solving and change is, essentially, political, rather than analytical-rational in nature. That is, it is based on the ordinary knowledge and the social interaction among the members of the organization, pursuing their different beliefs, interests, and ideologies, rather than based on some behavioral science technology of problem solving and change (compare, Lindblom and Cohen, 1979; for a more exhaustive attempt to characterize this strategy of change, see Ellstrom, 1982). Examples of a participative self-regenerative strategy of change in concrete practice are rare. However, there are ideas scattered in the literature on planned organizational change and organizational design which come close to this notion of planned change, for example, the conception of a self-designing organization (Hedberg et al., 1976; Weick, 1977), and the model of democratic planning proposed by Sandberg (1976).

Although perhaps attractive as a conceptual model, the above stated one-to-one relationship between different organizational models and different strategies of change is far too simple as a descriptive model. The primary reason for this is, of course, that the organizational reality of schools is hardly unidimensional in character. Thus, none of the above organizational models can be assumed to represent this reality to the exclusion of the others. Analogously, a corresponding complexity should be expected concerning strategies of change. Thus, strategies of change can likewise not be thought of as unidimensional processes, relying on a few, simple mechanisms of change to the exclusion of other possible mechanisms. In the remainder of this article, an attempt is made to deal with these complexities.

OUTLINES OF AN INTEGRATIVE FRAMEWORK - TRUTH TRUST POWER AND FOOLISHNESS AS FOUR ASPECTS OF SCHOOL ORGANIZATION

Each of the four organizational models described above emphasizes different aspects of organizational reality. That is, each model emphasizes certain variables, while others are deemphasize or ignored. Consequently, each model can be expected to give only a partial understanding

of the organizational reality. Given this line of reasoning, the point could be made that it might be possible to obtain a more comprehensive understanding of organizations by integrating the four models into an overarching framework (cf. Allison, 1971). Efforts toward such a reconciliation of different organizational models are made by, for example, Allison (1971), Olsen (1976), and Pusey (1978). In this section, some outlines of an integrative framework for the analysis of the school as an organization are proposed.

A basic assumption of the proposed integrative framework is the idea of complementarity between the four models of organizations described above. That is, the models are viewed as compatible, rather than as mutually exclusive alternatives. More specifically, the notion of complementarity as interpreted here means that the four models represent four aspects of the same organizational reality (cf. Pusey, 1978). Thus, according to this view, organizations are assumed to be characterized by a rational, a political, a social system, and an anarchistic aspect. Of course, this view of organizations does not imply that all four aspects are equally salient in any organizations, all of the time. On the contrary, it is assumed that different aspects may be differently salient in different kinds of organizations (for example, schools and industrial organizations), in different parts or subsystems of the same organization, or even in the same subsystem at different points in time. In the text below, a set of conditions is proposed under which each of the four organizational aspects is assumed to be particularly conspicuous.

The proposed conditions are specified along two dimensions: (a) the degree of clarity and consensus concerning organizational goals and preferences; (b) the level of ambiguity concerning technology and organizational processes.

The first of these two dimensions concerns the extent to which the goals and preferences of an organization are clear, consistent, and shared by the members of the organization. Two extreme values are distinguished within this dimension: the case of clearly stated and shared goals (the consensus condition) is distinguished from the case where the goals are unclear and/or disagreed upon (the conflict condition). The second dimension concerns the degree to which the technology and the organizational processes are clear and well understood by the organizational members. Also this dimension is dichotomized:

clear technologies and transparent processes are distinguished from unclear technologies and ambiguous organizational processes.

Taken together, the two dimensions described above produce a four-fold table that can be used to classify the four organizational aspects, or, viewed in another light, the four models of organizations, distinguished in this article. The resulting typology, which is an elaboration of the well-known classification of decision issues advanced by Thompson (1967), is presented in Table 2.

Table 2: A Typology of Four Organizational Models

		(a) Organizational Goal and Preferences: Clear and shared (consensus)	(a) Organizational Goal and Preferences: Unclear and/or disagreed upon (conflict)
(b) Organizational Processes/ Technology	Transparent/ Clear	The Rational Model Keywords: Truth, Thinking Task-orientation	The Political Model Keywords: Power, Conflict, Struggle
	Ambiguous/ Unclear	The Social System Model Keywords: Trust, Learning, Collaboration	The Anarchistic Model Keywords: Foolishness, Randomness, Play

As is clear from Table 2, each of the four cells of the typology represents a different model of organizations. In order to summarize the main theoretical emphasis of the four models, each model is characterized be a set of keywords. Furthermore, a set of conditions is indicated under which each of the models is most likely to apply; or alternatively, under which different organizational aspects are assumed to be differently salient.

Consider, first, a situation characterized by clear and shared goals (the consensus condition), a clear technology, and organizational processes that are well understood by the members of the organization. Under these conditions, the rational model is assumed to be adequate both as a descriptive and as a normative model of organizational action. Due to its emphasis on cognitive and instrumental aspects of organizations, the rational model is characterized by the keywords: truth, thinking, and task orientation.

If there is a consensus concerning goals, but the technology and the organizational processes are ambiguous, for example, because the consequences of organizational action are largely unknown or only dimly recognized, it is assumed that social factors like norms, ideologies, and traditions will play an important role as determinants of organizational action. Furthermore, it can be assumed that organizational activities, to a large extent, will be guided by organizational learning based on trial-and-error procedures and feedback from previous actions, rather than by deliberate calculation. Thus, under these conditions the social system model is most likely to provide an adequate framework for understanding organizational processes. In order to underline its emphasis on interpersonal relationships and organizational culture as determinants of organizational action, the social system model is characterized by the keywords: trust, learning, and collaboration.

When goals are unclear, inconsistent, or disagreed upon by the members of the organization (the conflict condition), political processes are assumed to take precedence over analytical-rational behavior (March and Simon, 1958). Given these conditions, it is presumed that organizations are best understood according to a political model. In order to indicate some of the important determinants of organizational processes according to this model, it is characterized by the keywords: power, conflict, and struggle.

Finally, when there are unclear or conflicting goals, together with ambiguity concerning technology and organizational processes, the situation comes close to the one that is presupposed by the anarchistic model of organizations. The logic of non-rationality that is assumed to characterize organizational processes under these conditions can be indicated by the keywords: foolishness, randomness, and play.

The typology of organizational models presented above (see Table 2) is an attempt to integrate what is assumed to be four significant aspects of organizational life. Using some of the keywords given above, the profiles of the four aspects can be characterized by the words truth, trust, power, and foolishness. Of course, these aspects are important not only to organizational life, but to life itself.

CONCLUSION: TOWARD A COMPREHENSIVE STRATEGY OF PLANNED EDUCATIONAL CHANGE

The point of departure for this article was a distinction between four organizational models with potential relevance to an analysis of school organizations. After a brief overview of the four organizational models, an attempt was made to explore possible relationships between the four models and some common strategies of planned educational change.

Following this analysis, it was argued that many organizations, including schools, cannot be characterized in unidimensional terms according to the one or the other of the organizational models distinguished in this article. Rather, most organizations are characterized by elements from different models. Consistent with this argument, an integrated framework for analyzing school organizations was proposed, including rational, social system, political, and anarchistic aspects of organizations.

Of course, such a multifaceted view of organizations has implications for the planning of change. More specifically, it requires a comprehensive model of planned change. That is, a model which integrates the different aspects of organizational reality outlined above.

Accordingly, a comprehensive model of planned educational change should involve at least the following aspects: the utilization of scientific

knowledge and the use of analytical-rational methods for problem solving and planning, that is, the rational aspect; problem solving through the exercise of power and authority and through processes of conflict, negotiation, and compromise, that is, the political aspect; the consideration and management of norms, culture, symbols, and interpersonal relations, that is, the social system aspect; and, what has hitherto been a largely overlooked aspect, problem solving in accordance with a logic of non-rationality (a garbage can logic), playfulness, and sensible foolishness, that is, the anarchistic aspect.

Most of the contemporary thinking concerning strategies of planned educational change emphasizes the rational, the political, or the social system aspect of organizations (compare, for example, Chin and Benne, 1969). However, specifically in the case of schools and certain other types of public organization, the anarchic properties are, according to many authors (Weick, 1976; Cohen and March, 1974; Daft and Becker, 1978; March and Olsen, 1976) particularly salient. This possibility, together with the often noticed tensions between rationality and non-rationality, integration and structural looseness found in schools (Katz, 1964; Bidwell, 1965; Weick, 1976; March and Olsen, 1976), strongly indicate the need also to consider the anarchistic aspect in a comprehensive model of planned change in educational settings.

Perhaps it is only through an integration of all of the four organizational aspects considered in this article, that is, through an integration of the aspects of truth, trust, power, and foolishness, that it is possible to approach a truly rational model of planned educational change.

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THE ORGANIZATION AS A DIDACTICAL "FRAME FACTOR"

The background of this paper is experience with concepts and practice in two projects:

1) Organization, leadership and professional development - the OLY project, University of Oslo, and
2) Alternative forms of management in the comprehensive school - the ASF project at the National Council for Innovation in Education, Oslo.

The first project concentrates mainly on the connections between certain concepts within organization theory and theory of education, while the latter project aims at registration and analysis of practical experience with various forms of handling the function of the comprehensive school leader. Considered together the two projects have made it possible to reflect on the connecting links between theory of education and organization theory, analytically and normatively.

I will now attempt to present these experiences briefly by

- a more thorough description of the theme with its central concepts,
- indicating hypotheses or models that show some important relationships between concepts,
- a brief empirical illustration, and
- points of view on the relationship between the problems, concepts and empirical data of the projects, and the possible exemplary value of experiences gained as regards the relationship: theory of education - organization theory in general.

THE ISSUE

What connection is there between the structure, decision process and leadership function within the school as an organization - and the manner in which "didactical rationality" finds expression in the teachers' practice? The intuitive starting-point for searching for an answer to this question was experience as head of a junior high school (the upper part of the Norwegian comprehensive school) while working to motivate teachers to put into practice the intentions of the comprehensive school reforms in Norway in the 1960's and 70's. It did not prove possible, either with the help of traditional educational theory, or sociology of education, to reach a more complete understanding on which to base an explanation of why there were a few schools that became successful "educational provinces", whereas most schools hardly changed at all. Theoretically speaking it was a question of trying to explain why change in practice takes place, or does not take place.

An attempt will now be made to indicate how an integrated understanding can be formed of the relationship between the concepts: society, training, education, and organization, as a basis for a model with change potential.

Social philosophy

The fundamental concept in explaining change as a problem is "organization of society" - the constitution of society as a totality. Social philosophy act as a determinant of the conception of what are rational institutions. Basically institutions may be regarded as a function of production conditions, a cohesive system upheld funtionally in relation to the development of the productive forces. Valid analysis of the subsystems (institutions) implies paying intention to disagreements, conflicts and alliance between groups and classes, that arise from varying interests and norms. On the one hand society may be viewed as a self sufficient system in a functional sense, but is at the same time marked by differences and conflicts when it comes to deciding the aims of the society - expressed in norms and interests.

Educational system

One of the subsystems is that of education. This system's manifest function is to assure fulfilment of the goals for socialization that are openly recognized and have been formally adopted politically, i.e., needs for qualifications and reproduction of ideology. (Lindbekk, 1978, p. 29.)

Supplementary functions are the functions of selection and keeping charge. With Lindbekk (1973, p. 8), it may be maintained that the educational system has been both directed by and aimed at "the formation of a national élite with a concept based on the national system and loyalty and obedience towards the demands that were founded on the national system."

The task of the educational system has consequently been "to organize the surrounding world" (Lundgren, 1981) for conscious learning purposes, during the socialization process, based on the needs of the national élite's interests and values. An analytical approach in examination of the educational system may be undertaken on the above premises by identifying codes and "frame factors" on three levels:

1. Historical and current background to the curriculum code,
2. Planning the curriculum
3. Implementation of the curriculum (ibid.)

With this approach the school unit as a social system with certain objectives will clearly appear as a central factor in the framework in relation to the subsystem's objectives, and to the national élite's manifest and latent needs for socialization.

Didactics

Theory of education means all systematized knowledge about individuals' and groups' processes of socialization. I consider didactics to be that part-discipline which develops knowledge about the process of informing - about the transmission of knowledge, attitudes and skills, i.e., knowledge of the relationship between theory of education, legislation, curriculum, and regulations, on the one hand, and practice on the other. Within didactics, knowledge of the connection between socialization aims,

content and method may be termed curriculum theory. The concept didactics is used in varying ways by educationalists. In this paper it is given a broad meaning, to include knowledge of the theory - practice relationship within education, specified by the search to elucidate the reasons for set aims or norms within socialization, the reasons for content and method, and the connection between these categories. With a broad concept of didactics and Lundgren's analytical, curriculum-theoretical approach it will be possible to define the levels of process in and products of the educational system in the following way:

National political level

At this level the formal educational-political decision process takes place. In addition to more manifest ones latent and diffuse interests and values will also be integrated into the formulations of objectives and means of their application for two main types of socialization: the needs for objective qualifications commonly recognized as obviously necessary, and the needs for reproduction of ideology. The latter implies a decision as to what fundamental modes of thought and what values should be transmitted to all recruits to society. The process at this level is manifested in educational regislation, which provide the guidelines for aims, content, method, and arrangements for resources, management, and control. Educational legislation is the formal expression for the educational system which the society in question desires. Analytical-didactical research at this level might be a clarification of the process leading up to educational legislation, its content, and potential for latent eufunctions and possible latent dysfunctions.

Central executive level

At this level there takes place the codifying process of society's will to socialize which has found expression at national level. Professional educationalists and bureaucrats interpret the legislation and its written premises with the intention of operationalizing the code of aims, content, and method - as well as specifying the framework anticipated to be necessary for implementing the code. The most important unit for socialization - the individual school as an organization. The results of the process at this level are curricula, regulations, instructions, and decisions on budget, buildings and equip-

ment. Here the interesting field of research will precisely be examination of the level's interpretation of legislation, and the study of consistency between the components of the educational code and the relationship between code and frameworks, especially arrangements for management and control.

Organization level

Here it is sought to carry out the codified will of society within the separate school units, the pupils' learning process itself. The interpretation by individual teachers and bodies of teachers of the code and their experience of the frameworks with regard to provision of room for action, will have decisive effect on whether the aims set at the top level will be attained.

The concept: organization

School organization as a didactical "frame factor" should, according to what has just been expressed, be the object of attempts to make it the most rational instrument possible for implementing the didactics code. Etzioni's (1978) and Abrahamsson's (1982) and Berg's (1981) discussion of the relationship between system-theoretical and rationalistic conceptions of organization shows the necessity for analysis of existing school organizations based on their validity with regard to the didactics code, and not as free-standing, open systems to benefit the interested parties.

With Berg (ibid.), it may be analytically profitable to consider the school unit from different angles: that of the pupils, the teachers, or the public authorities. With the background of Etzioni's concept: "professional organization", it will be the teachers, and in particular the body of teaching staff as a whole at each school, and their interpretation of the code and framework in relation to public authorities (bureaucratic organization) and to the pupils (coercive organization) who will set the amount of room for action to change existing practice. - When this manner of considering the school as an organization is to be related to the historical development of organization theory, it will link up with both Weber's bureaucracy theory (Weber, 1971) and with the Human Relations movement and the systems approach

(inter alia MacGregor, 1966). But the temporary coincidence of dissimilar lines called structuralism (Etzioni, 1978) still appears to be the most valid for the type of complex organizations the school belongs to. Starting from structuralism's system perspective it will be desirable to identify the most generally valid concept apparatus as possible, for analysis of the school unit - which suits the broad concept of didactics. Blegen and Nylehn (1979, p. 33) seem to meet the need with their concepts: structures, processes and functions.

Structure

By social structure is understood relatively permanent patterns for thought, evaluation and action. Educational legislation, curricula, and regulations state the school unit's formal structure. The school buildings and equipment make up the technological structure. Interaction between the individuals at, or attached to the school, is called the informal structure. These three structures obviously interact, but this interaction is marked more by conflict than by harmony.

Processes

The formal and technological school structure is established in order to carry out the didactics code. The activities that are carried on should, logically speaking, be related to this purpose. To a greater or lesser degree there must be activity that consists of finding out what actions are desirable and meaningful. This implies direct or indirect involvement with the goals of the organization. Consequently, goal-setting processes must take place. In the wake of attention to goals, comes the necessity of making decisions as to what goals are to be sought. This activity makes up the decision process. In order to carry this out, the deciders need information about different alternatives for reaching goals. The need for information requires processes of communication. Within the school structure there will simultaneously be goal-setting processes and processes of decision and communication. These processes result in certain effects - functions.

Functions

The functions of the school as an organization may first be roughly divided into two: The effects of the above processes have as their primary purposes to make sure that the school organization is maintained from day to day. It is necessary to maintain daily activity in order for pupils and teachers to continue regularly within the technological structure. The sum of these effects may be termed internal functions. The second type of effects that the processes within the structure must result in, are necessary external functions, i.e., the school organization must give the pupils qualifications and modes of thought/values, in regard to the purpose of the educational system, to a degree that lets the "owners" continue to maintain their allocation of resources to, and thus maintenance of, the school unit. If an analysis of the agreement between the manifest aims of the educational system and its external functions in the form of qualifications and reproduction of values should prove to be a striking disagreement - and the organizations are still provided with energy, it is a question whether there are latent aims being fulfilled by internal and/or external dysfunctions, and whether these are only apparently dysfunctional.

MODEL

Hypotheses

From the preceding description of concepts the general connection will appear between didactics and organization. It will now be attempted to deduce practice from the fundamental reasoning by presenting some hypothetical statements about didactical consequences as a result of changes in the school unit's formal structure. Didactical consequences correspond to the organization theory concept: functions, both internal and external.

The macro-societal framework for the argumentation is Norwegian society and the Norwegian educational system. The relationship between aims and organizations of the educational system evidently has national variations, structurally in regard to differing degrees of

centralism and as to content in regard to norms for valid qualifications and values. The background for hypotheses on conditions for change consists of certain assumptions about the present function of the school in Norway. Teachers and bodies of teaching staff are presumed to have a somewhat diffuse relationship with educational legislation, curricula, regulations, and educational-didactical theory. As far as change goes, attention has been paid rather one-sidedly to a practical-technical, method aspect and to socio-psychological situations in the school environment. This assertion implies that the teaching profession's most essential requirement - the societal-oriented educational knowledge, linked to practice through a broad concept of didactics - has been lacking. The school has predominantly been a bureaucratic - administrative organization, and has thus been characterized by administrative rather than by educational rationality.

My assertion is that the school must structurally be made into a professional organization, if valid change of importance (in relation to general goals) is to take place. This means that teaching staff - structurally - will have to acquire and use theory of transmission of knowledge, values and skills in a societal perspective, as well as theory of the school as an organization. This knowledge provides the basis for analysis. In addition it must be structurally necessary for the teaching staff to acquire knowledge about the normative content of legislation, curricula, regulations, and decisions on resources.

- What structure could have such an effect? The hypothesis is that certain changes in the school unit's formal management structure could necessitate the teachers' participation in the process of setting up objectives of decision and of communication in a way that would change internal and external functions in the direction of didactically valid consequences. (Bergersen and Tjeldvoll, 1983.)

Operationalization

In order to test the above hypothesis empirically the following conditions must be fulfilled:

1) It must be permissible to change the arrangements of management of a number of schools so that the teachers unavoidably participate in goal-setting, decision-making, and communication processes.

2) It must be permissible to check the degree to which the teachers take part in these processes.

3) It must be permissible to register indications of any changes in the teachers' underlying analytical and normative knowledge, their educational-professional profile.

4) It must be permissible to register any such changes in the methods applied by the teaching staff in question that are consistent with objectives and content categories.

EMPIRICAL ILLUSTRATION

In the school year 1981/82 seven comprehensive schools took part in experiments with alternative forms of management. The experiment plan fulfils in the main the conditions for operationalization mentioned above. In the situation report from the first year of experiment (Tjeldvoll, 1982) it is shown that the system of management varied in the seven schools within a scale - from one extreme where the change only meant that the post of assistant head was shared by two people, chosen by the teaching staff, to the other extreme where the whole of the teaching staff became responsible for management. Only one school had a head teacher. Most of the schools had steering groups of teachers, varying in number.

One main condition for being allowed to carry on administrative school experiments - having schools without a head - was that the teaching staff had to guarantee administrative capability. Information after the first year shows that Education Officers and parents were very satisfied with the everyday running of the schools.

The information structure has been changed in a way that necessitates more personal contact than before, for instance planning meetings and participation in conferences on education and management. Planning co-operation and a new form of work-sharing show that internal functions have changed. Externally there are changed functions in relation to the Education Officers (marked as positive), to Norsk Laererlag (Norwegian Teachers' Union) - (from negative to positive), to the Ministry of Church and Education (from positive to negative). The need for more information

to more people has changed the process of communication. More people than before are active in the decisionmaking process, but "mini-heads" are a recognized fact.

The experiment schools' professional-educational profile appears traditional at present. There is little expression of attention to the school's societal funtion or to the connection between the school's purpose, content, and method. In method the experiment schools seem more creative than the average. An unusual professional-educational keenness is shown, expressed in an interest for innovation.

These schools have now formed their own special association, one of its main purposes being survival, because the experiment has a time limit and is controversial on the national political scale. A second important aim is to have at least two educational conferences per year, where teachers from all seven schools can meet to exchange experiences and gain insight into educational development work by having outside lecturers (Tjeldvoll, 1982 b). A third aim is to organize the exchange of teachers, so that teachers may be exchanged between schools in order to learn from each other.

DISCUSSION

Which innovative features will be kept on at these schools, and, concretely, their degree of implementation of the didactics code over the coming years, will show whether this is valid confirmation of the assumptions about the connection between professional organization and educational practice. Experiences up to now provide clear indications that the teachers themselves take the initiative to discuss their educational profile. However, there are several reasons why expectations about growing developments should be limited.

For one thing, the period of experience is still very short - in the perspective of educational development work. Again, the Hawthorne effect may be considerable, since the teachers have been, and are still, in a situation of opposition to central school authorities and to their trade union. Opposition, it is true, possibly compels efforts towards educational and administrative self-justification.

Finally, a third reason for scepticism: it is not improbable that the experiment will be stopped by a political decision at the end of 1983 or in the summer of 1984. Politicizing the experiment may at the same time - in the long run - mean that changes in the law will be made to legalize forms of management in the comprehensive school which will turn this section of the educational system, also, into professional organization.

For the theory project (OLY) the practical experiences have been a strong stimulus for continuing work with development of a concept apparatus, in which, within a society-oriented approach to a general understanding of education there can be developed a broad concept of didactics - with organization theory as a requisite element.

The starting-point for further investigation into the connection between structures of the organization, processes, and didactical functions, was the effect of the attempts to reform "the inner life of the school" after the big structural reforms. At the same time criticism of traditional forms of leadership and traditional ways of teaching was being expressed. This criticism was reinforced by the school extension in length of time, breadth, and breadth of recruitment.

The answer to this criticism was often concentration on human relations based on socio-psychological insight. This has resulted in measures that may be briefly characterized by the cues dialogue education, self determination, less authoritarian leadership, wellbeing, climate, and the involvement of various interested parties in the school's practical work. In isolation these may be considered positive factors, but it has become increasingly clear that they are insufficient in a change perspective, and to let measures of this type become the basis of development work may prove to be latently dysfunctional. In general it would seem that the basis for understanding might be characterized by the cues socio-psychology, system, and harmony. Changes in the informal structure led to expectation of valid didactical functions, internal and external.

- Against this way of understanding and this practice, two types of objections can be raised.

First, there is a lack of attention to the necessity of management and control. Both the school's objectives and the management and control mechanisms placed above them in the educational system have apparently been overlooked, or have not been given much weight. At the same time as emphasis has been laid on self-determination, well-being, "flat organization" and anti-authoritarian leadership, the necessary conditions for sanctioning both teachers' and heads' judgments have been drastically reduced. Although moving in a field with diffuse connections, I would suggest that both the former bureaucratic management style and the later soft-management leadership are dysfunctional within the school as an organization; a permanently appointed bureaucrat as leader does not guarantee that processes of goal-setting and decision-making will have a rational educational-didactical basis, and the teaching profession's character - as a socializing agent - makes it dysfunctional for the teachers' development of authority as an educationalist, to be "led". - From this argumentation the hypothesis arises of the school being led as a professional organization; which means that the necessary administrative personnel is subordinate to processes of educational-professional goal-setting and decision-making. The leadership function is then taken care of by a leader appointed for a term of years or by an elected professional educationalist, or by staff steering groups.

The other main objection to the attempted measures for change is that they seem to be based on a lack of insight into the school's function in society. It seems as though consequences have been expected for school development and educational development work through the measures mentioned here that would cause a change in attitude of those involved. To a great extent it has been overlooked that the school is a function of a society marked by conflicts of values and interests, and that this fact must quite systematically create conflicts within the school unit. An essential condition for the practice of change will therefore be that the school as an organization - structurally - makes it imperative for the teachers to see these conflicts. When that is done a basis will have been provided for insight into what is a realistic expectation of aim fulfilment and into what "aims" are unable to be fulfilled. Real changes require teachers to be qualified to seek out

the boundaries of their room for action. Room for action will vary from school to school, so that this type of qualification will have to take place at the same time as teaching, in practice.

This reasoning, also, results in the idea of professional organization. Structures and processes in the school as an organization must create felt needs for knowledge on analysis of the didactics codes and on the school as an organization, and for knowledge about the normative content in the current didactics code.

SUMMARY

The project experience so far, theoretical and practical, has resulted in the wish that the practical experiment in the schools may continue. Ideally, more schools and larger ones ought to be included, and a longer time-perspective is needed in order to be able to register effects of experimenting with the normal structure. At all events, the experiment will generate interesting information in relation to the theoretical project. Is it at all possible to fix on a generally valid use of concepts applicable to a society-oriented approach to education, and is it possible to find a structure that will necessitate the application of such an understanding of concepts and thus create the need for discovering the boundaries of one's room for action? Or will this be just another "innovationistic wandering in the desert"?

On a general conceptual level the project experiences confirm the usefulness of extending, within education as a practical academic discipline, the part-discipline didactics/curriculum theory to include organization theory. Organization theory is a requisite analytical instrument for investigation into structures, processes, and functions of existing school units. Organization theory gets normative meaning when used in the constitution of didactical frame factors aimed at application of a didactics code with a given normative content.

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CONTROL STRUCTURE AND STRATEGIES FOR CHANGE

Introduction

An organization's activities are a function of the external control originating in its environment and the internal control regulating the interaction of its various component parts. In other words, an organization is shaped by its external and internal control structures. The nature of this control varies from one organization to another, the character of the control structure being dependent on the tasks or functions the organization is there to perform. In the present paper I shall argue that the type of control structure existing determines (a) what theoretical model has the greatest explanatory value in an analysis of phenomena occurring in a specific organization, and (b) what strategy for change corresponds to the control structure in question.

Market control, systems theory, and OD

A manufacturing company is ultimately governed by the market in which its operations are located. In order to survive, it must be able quickly to recognize signals indicating changes in the market forces affecting it. In other words a company has to evolve as great an ability to adapt to its market as possible. This in turn presupposes a flexible internal organization with effective channels of communication and decision-making procedures.

Organizational phenomena within a firm which has a control structure of this kind can be explained and understood from a systems theory point of view. In brief, this involves a view of the organization as

a system whose technological and social components are in constant interaction. Underlying systems theory are such conceptions as adaptation, feedback, differentiation, homeostasis, and so on.[1] An organization is viewed as a complex whole which can be divided into a number of subsystems all striving to achieve some form of flexible equilibrium with one another. A change in one subsystem causes some kind of change or adjustment in the others.[2]

A model closely allied to the systems way of thinking is that of the organic organization, introduced by the two Scotsmen Burns and Stalker[3], which, briefly, entails the following:

- communications, control and authority in the organization are characterized by networks;
- internal organization is controlled primarily by a community of interest between organization members and the company;
- company management are co-ordinators rather than traditional givers of commands.

On the basis of the organic systems approach, a change model known as OD (organization development) has been evolved. Several different definitions of OD have been put forward, basically classifiable according to whether they focus on social psychological[4] or sociotechnical criteria[5]. A social psychological definition of OD assumes that changes in the people working in an organization result in changes in the organization as a whole. A sociotechnical approach to OD works on the assumption that both 'human' and other activities (e.g. administrative, productive, etc.) fall within the scope of OD work. In practice, the difference between these two views of OD turns out to be fairly minimal. One of the pioneers of OD, Wendell French, an advocate of the sociotechnical approach, said in an interview[6] that OD ultimately has its roots in the social activities of organizations.

To sum up, then, OD as a strategy for change is founded on the organization in question ultimately being controlled by environmental market forces and its activities thus being explainable and understandable from a systems point of view.

Control by the 'mandator', rationalist theory, and OD

Not all organizations are firms, nor do they have the same tasks and functions as firms. Schools, for instance, are institutions set up by society/the State to perform certain specified tasks. Society or the State can thus be regarded as the mandator, or principal (in the sense of the legal relationship of principal and agent), of the school system.[7] Planning is a key concept as far as control of such organizations is concerned. The mandators create the organization to achieve certain aims which they consider desirable. Thus the organization is a 'product of the plans of an acting subject'[8] rather than of organically 'natural' processes.

The approach embodied in rationalist theory corresponds to this view of organizations. Abrahamsson describes it as follows:

> The rationalist approach has two basic characteristics. First, the actions of organizations are seen as a function of goals, which are set up by some individual or group of individuals (the organization's mandator). Second, it is assumed that the person or persons who are able to implement the goals on a day-to day basis are capable of carrying out an inventory of different alternative ways of reaching the organization goals, and that the individual is able to choose an adequate means for performing the chosen strategy in the most economical fashion ("economy" construed broadly).[8]

A change model founded on this view of organizations is in my opinion not compatible with an OD approach, whether of the social psychological or sociotechnical variety. An attempt to understand and explain the day-to-day work schools do must take into account the fact that they are institutions created by society to perform specific tasks. And thus, equally, a strategy for change for use in schools has to be compatible with their overall control structure. In another context Erik Wallin and myself have evolved a change model (we call it the DO model)[9] which is in harmony with the control structure governing Swedish schools. The key concepts of this strategy are boundaries or limits and knowledge. If schools are to develop in accordance with society's educational aims and if it is to be possible, moreover, to criticize and question these aims, school staff and other interested

parties must have a basic knowledge of the forces defining the limits of school activities. What I am referring to is, first, an understanding of the school as a social institution charged with often conflicting tasks. And, in addition, knowledge relating to curricula as instruments of control, to the school as an organization, and to the potential for and conditions governing local school development.

Summary

The above discussion can be summarized with the help of the following diagram:

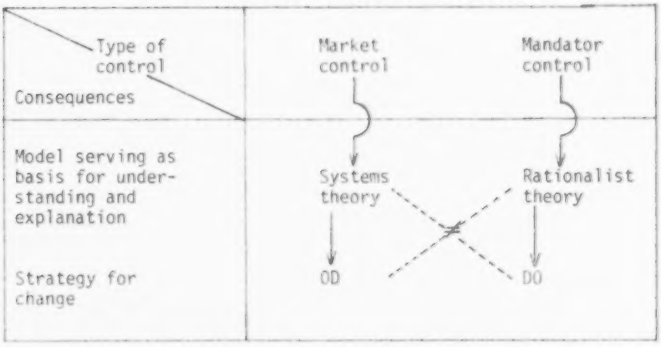

Figure 1. Market control versus mandator control.

The gist of my argument so far, then, is that OD is a fruitful model of change in organizations controlled by market forces, while DO is similarly serviceable in an organization controlled by its mandator. It would appear more problematical, however, to use DO in a business enterprise or OD in a Swedish school, for example.

Examples of the interrelationship between control structure and strategy for change

Among the most prominent figures in OD in the North American educa-

tion system are Professors Richard Schmuck and Philip Runkel and their colleagues at the University of Oregon. As far as we can understand, the Oregon team stand for a more social psychology-oriented type of OD.[10] As was indicated earlier, such an approach is based on the conception that changes in human activities within an organization have implications for the organization as a whole. In line with basic systems ideas, the Oregon group view organizations as consisting of a number of subsystems, all of them 'populated' by organization members. The relationship between these subsystems is characterized by both integration and differentiation, the degrees of which are dependent on the demands placed on the organization by its environment. What sense do Schmuck and his colleagues attach to the word 'environment'? The following quotation suggests a possible answer:

> School environments in contemporary society are incredibly complex and undergoing rapid change all the time. - The school that was equipped to serve white, middle-class college-bound students five years ago, for example, may now find itself with a large proportion of students having very different needs and values.[11]

'Environment' thus appears to have basically the same meaning as I earlier ascribed to the word 'market'.

Having interviewed Schmuck[12] and some of his colleagues and read a number of their books and articles, we (Magnus Söderström and myself) have come to the conclusion that OD in the field of education has two main aims:

- to create a high capacity for self-renewal in schools, this in turn presupposing
- that the subsystems function as efficiently as possible.

A school with a sound capacity for self-renewal (organizational adaptability) exhibits according to Schmuck et al. such characteristics as the following:

> An adaptable organization is continually and consciously solving problems that arise either because groups in the organization's environment are pressing for change or because new goals are being established within the organization itself. 11)

A capacity for self-renewal thus implies that the organization as a whole is 'by itself' capable of adjusting in response to indications of change coming from its environment and of passing on these signals to its subsystems as quickly as possible. These signals may then result, for instance, in the present pattern of integration and differentiation among the subsystems being changed.

The second main objective of OD work in the field of education is to make the subsystems - which together constitute the school as an organization - as efficient as possible. According to the Oregon researchers this requires the subsystems to be characterized by

- well developed channels of communication
- clearly stated goals which are familiar to the people who work in the subsystem in question
- an ability to handle conflicts that arise
- effective meeting procedures
- a high problem-solving capability
- a sound ability to make decisions and handle pressure for change.[13]

This discussion can be summed up with the help of the following diagram:

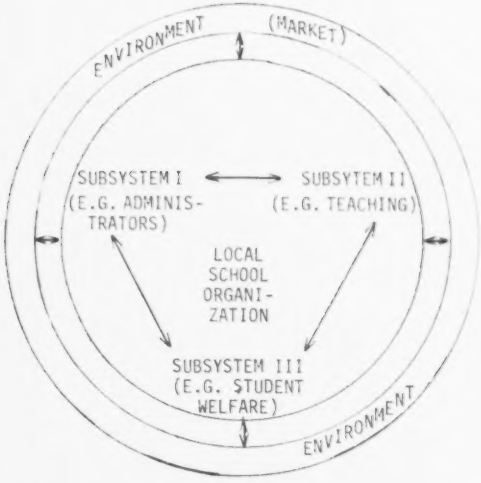

Figure 2. Market control over a school.

The idea, then, is that a school with a high capacity for self-renewal will recognize pressure for change in its environment, 'environment' here being equivalent to the local socio-economic community. Calls for change will be transmitted to the organization's subsystem, which, thanks to their efficiency, will have the capacity to 'implement' these changes internally.

Local OD consultants

On the initiative of Schmuck, Runkel and their colleagues, what is known as an OD cadre has existed at the district level in Eugene since 1971. This cadre consists of a number of teachers, principals and school administrators who have undertaken OD functions in the district's schools in line with the ideas described above. The cadre is composed of volunteers, who receive no special remuneration for their consultancy work. Cadre members only act as consultants in schools other than the one at which they are regularly employed.

The idea behind the cadre scheme is to create a group of OD consultants who can be said to be in close touch with their clients in their regular jobs, but who are nevertheless outsiders. The Oregon team explain the thinking behind the cadre as follows:

> First, each part-time specialist becomes a channel of communication between the cadre and the subsystem in which he or she holds a regular job. Second, each specialist becomes a source of support and expertise for other cadre members who are working with a group of which the specialist is regularly a part. Third, when they consult in subsystems to which they do not regularly belong, cadre members are in effect outsiders, which has the result that their perspective on the client's situation can be relatively unbiased.[14]

What, then, are the functions of cadre members? Here are a few examples:

- to help the school concerned to solve communications problems of various kinds
- to assist in formulating schools' goals
- to tackle and resolve conflicts
- to solve problems in a systematic fashion, etc.

These 'peer-consultants' can only perform such functions if they carry out their consulting roles with strict neutrality. They should not, in other words, take sides with any particular party, but concentrate on solving in an impartial manner the problems defined by their clients. The purpose of the enterprise is to create within the 'client school' a structure which promotes its capacity for self-renewal.

The cadre can be characterized as a service organization whose job is to increase the efficiency of subsystems of schools with a view to improving the schools' self-renewing capability. What constitutes inefficiency, or, to put it in different terms, what constitutes the 'problems', is defined 'inside' the client schools themselves. The peer-consultant thus operates on terms laid down by the school in question itself, terms influenced to a greater or lesser extent by pressure from its environment. As a result, there is generally a high degree of readiness for various OD interventions at the client school concerned. Clients, moreover, are aware in broad outline of what steps the peer-consultant will take to deal with the problem which has arisen (e.g. provide training in meeting techniques of various kinds so as to improve communications at staff meetings). As has just been pointed out, the OD philosophy of the Oregon team includes, as a precondition of the peer-consultant's work, the ethical principle that he or she should behave in an impartial manner towards the various groups in the client school. Of course this neutrality has its limits, in that the consultant has agreed to work on terms defined by the school. The consultant needs to be neutral primarily in relation to the various groups within the school.

The work of the peer-consultant can be summed up as follows:

1) The consultant is engaged by the client school to solve specific problems. These problems have been defined by the school itself, and have arisen more or less under the influence of the school's environment.

2) The consultant works according to the following principles;
   - the subsystem in which the problem has arisen is identified;

- appropriate measures to solve the problem are implemented;
- as a result the subsystem becomes more 'efficient',
- which in turn leads to an improvement in the self-renewing capacity of the school, i.e. the school becomes better able to adapt speedily in response to internal and external demands for change.

3) Central to the peer-consultant's working strategy are a high degree of readiness in the client school and personal neutrality. A high degree of readiness arises from the fact that the problem is defined 'from within', and the consultant's neutrality is a prior condition of his authority in the client school.

Problems facing OD work in Eugene

On a visit to Eugene[6)] we were informed that a district curriculum which had recently been adopted by the school board had changed the control structure of the community's education system. The curriculum, known as Middle School Guidelines, comprises grades 6, 7 and 8, i.e. the final grade of elementary school and the first two of junior high school. These guidelines consist of both outline class schedules (time-tables) for each grade and more general formulations of educational ideology, calling for changes in traditional school activities. Among other things, the changes are intended to ease the transition from elementary school, where the teaching of each class is mainly the responsibility of one teacher, to junior high school, with its subject teacher system. To make the transition as smooth as possible it is, according to the guidelines, necessary for teachers to co-operate more closely between and within the two types of school. In addition, there must be less rigid boundaries between the different subjects at junior high school.

The new curriculum has clearly given rise to some protest on the part of the teaching profession in the district, who to all appearances have an entirely traditional view of their jobs - that is, they are 'lone wolves' and subject specialists. They wonder why school activities which have previously been successful should be changed.

Where does the OD cadre fit in here? After all, an OD consultant is supposed to be neutral and work on the basis of the client school's wishes. Is it possible or reasonable for the consultant to violate these basic principles and concentrate his efforts on promoting school change in line with the aims expressed in a curriculum? We put this question to a member of the cadre and were given the following answer:

> It's a real dilemma for cadre people, because it's not the way they see themselves functioning most effectively... What people in the cadre ordinarily would like to do is to be a process consultant, not a content consultant... People are trying to be very careful not to get locked into a corner of being the school district's 'hired gun'.

According to the cadre philosophy, our informant went on, school administrators are responsible for matters of content, leaving cadre members to continue to perform their more social psychological roles as process consultants. Consequently collaboration between school and consultant might function as follows: the principal may set up staff committees whose task is to suggest how the new guidelines can be implemented in the school; consultants can then come in, say, to improve communications in these committees and between them and the staff as a whole. The job of the consultant is thus to create effective channels for information and decision-making, while not being directly involved with the content of school programmes. The cadre will thus remain a service organization which turns out when school staff need help in certain clearly defined situations.

It would, our interviewee agreed, be possible of course to create a new type of consultant, one of a more 'ideological' kind, with the job of helping to implement the content of the new guidelines. However, it would not be realistic to expect present cadre members to assume such a function, since one of the main reasons why people volunteered to join the cadre was that they wished to develop their own skills in the areas in which the cadre has so far functioned.

To include the new guidelines, the consequences of which are described

briefly above, figure 2 can be amended as follows:

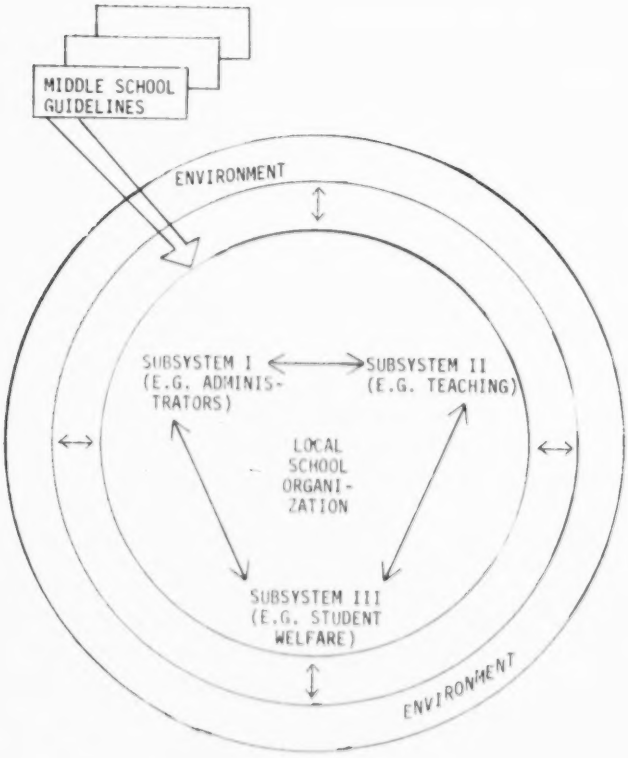

Figure 2 a. Control over the school by its mandator.

The introduction of Middle School Guidelines entails a new control strategy in the education system of Eugene. Control over schools is, following the adoption of these guidelines, no longer the internal concern of schools and their immediate environments. Criteria for deciding what school activities are acceptable have in other words

been moved outside individual schools. Members of staff protest against this new control strategy, at a loss to understand why procedures which work well need to be changed. We take this to mean that schools are working well in terms of the old market control model, based on the adaptation of schools to their socio-economic environments. In the systems sense they can thus be said to be in equilibrium. Measured against the criteria of the curriculum - that is, criteria laid down outside the immediate domain of individual schools - school activities are, however, clearly less successful. In other words, problems can no longer be defined in terms of interaction between school and neighbourhood (market), but in terms of the discrepancy between the aims embodied in the curriculum (i.e. those of the mandator of the school system) and actual day-to-day school activities.

The cadre of OD consultants appears to be placed in an awkward position by the new curriculum. Their knowledge base comprises various OD techniques which depend for their usefulness on a high level of readiness for OD interventions on the part of clients. This readiness is dependent on the problem which the consultants have been called in to help solve being one of major concern to the clients - i.e. clients must have defined the problem themselves. If pressure for change is brought to bear forcibly from without, this readiness will presumably be considerably reduced and one of the mainstays of the OD consultant's work thus removed.

The informant quoted above gave an example of how an OD consultant could assist in efforts to implement the new guidelines, assuming responsibility for the more technical aspects of the process. This is of course quite possible, but the fact remains that the problem has been defined outside the organization and readiness for change is thus limited.

An additional problem arising if a consultant of the kind I have described is to be engaged in a development project instigated by a curriculum, with the task of trying to influence the development of a school in line with curriculum objectives, is that he or she then ceases to be

neutral. The consultant ends up as more of an advocate of the underlying ideology of the curriculum.

The conclusion to be drawn from all this is that two basic conditions of the work of OD consultants are drastically changed if their role shifts from that of 'process' consultants to 'content' consultants (or from OD to DO consultants, to use my terms). That is to say the consultant has to

- relinquish his insistence on neutrality and impartiality, and
- be prepared to work in schools with a lower degree of readiness.

To all appearances, the cadre organization is tailor-made for creating a high self-renewing capacity in OD terms in the client schools involved. But when the control structure affecting school activities changes from market control to control dominated more by the mandator of the school system, the usefulness of an OD cadre of the kind described clearly decreases. What is needed is a new type of school consultant, concentrating more on reducing the gap between school reality and curriculum aims.

The above example demonstrates how the type of control structure determines the type of strategy for change to be chosen. In other words, the control structure can be regarded as the independent variable, the strategy for change as the dependent variable in this connection. The American education system is not, like its Swedish counterpart, subject to a homogeneous control structure. Some schools are controlled more by their 'markets', others more by their mandators. The practical consequences of a change from one structure to another are I believe quite clearly demonstrated by the above example.

Concluding comparison

In conclusion I should like to compare the OD and DO strategies with reference to a number of key concepts.

	OD	DO
Purpose	To improve the efficiency of subsystems with a view to increasing the organization's capacity for self-renewal	To bring the school more closely into line with the aims of its mandator (as embodied in the curriculum)
Who defines the problems?	Organization members on the basis of their own experiences. Defined 'internally'.	The problem lies in the discrepancy between the mandator's aims and reality. Defined 'externally'.
Consultant's role	Situation-oriented specialist	Generalist advocating the curriculum.
Typical activities	- Conflict resolution - Communications training	- Analysis of 'outer' and 'inner' limits to school work - Determination of the freedom of action available - Encouragement and support for actions making use of the freedom available.
Knowledge base	OD techniques	Curriculum theory, the school as an institution and organization, local development work
Sphere of school on which consultant's work focuses	Social aspects of activities	Activities as a whole
Theory base	Applied social psychology (systems theory)	Applied sociology and political science (rationalist theory)

Figure 3. OD versus DO.

To avoid misunderstandings, it should be pointed out that a number of common OD techniques can also be used to advantage in DO (e.g. interpersonal and communications training). The difference is that in DO such techniques are placed in a different context and do not have the same overall purpose.

Notes

1) Cf. Gouldner, 1961.
2) Cf. Katz & Kahn, 1966.
3) Burns, T. & Stalker, 1981.
4) See for example Schmuck & Miles, 1975.
5) Cf. French & Bell, 1978.
6) See Berg & Söderström, 1983, for further details.
7) Cf. Abrahamsson, 1977 (first published in Swedish, 1977); Berg & Wallin, 1981.
8) Quotation from Abrahamsson, op. cit.
9) See Wallin & Berg, 1983 for further particulars.
10) Cf. note 4.
11) Schmuck et al., 1977, p. 10.
12) An account of the interview is given in Berg & Söderström, 1983.
13) Schmuck et al., op. cit., pp. 19-20.
14) Op. cit., p. 527.

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SCHOOLS UNDER PRESSURE: considerations concerning the management of change during times of large scale educational renewal

1. Introduction

The steering and management of schools as organizational units is today of central interest to both practitioners and researchers in the field of education. There are a number of reasons for this concern, stemming from developments in the environment which have posed challenges to the school. One of such developments which we believe to be significant was the increased scale of renewal projects. In the Netherlands in the 70's a number of such large scale projects were started for which the central government authorities created new policy frameworks. More recently there have been incisive budget cuts.

These developments are now firmly intertwined at a central policy level and therefore have combined to confront the school organization with significant demands for change, both educational and organizational.

This chapter contains considerations from organization theory concerning the management of schools in the context of such pressures. Our starting point is the assumption that such pressures have implications both for the nature and intensity of dependency relations within each school and for the dependency relations between the school and its environment (other schools, funding agencies, etc.).

One of the consequences for the external dependency of the school organization is that a large scale project of educational renewal produces of its very nature a set of demands on the school which it has not encountered before: an external agency is determining local accountability and reporting procedures concerning the renewal project; when it starts and when it will finish; what phases it will go through; how it will be controlled and evaluated. In effect, the school becomes a 'contractor' for educational change, receiving special funds for the renewal project but in return having to manage the project and

give account of that management.

As far as the external dependency is concerned, we refer to schools as if they were unitary organizational actors, because this is the way their environment, e.g. funding agencies, typically approaches them. These external agencies are not interested in the total spectrum of goals, objectives and motivations of the various persons and groups within a school. They ask rather about the goals, objectives and motivations of 'the school'. Consequently, 'the school' comes under further pressure because this unitary character is to some degree a myth.

Within the school also the nature and character of dependency relationships can change in the context of a large scale renewal project. This comes about, in the first place, as the result of the external regulation referred to above. The demand to react outwardly to the external environment as an 'organizational unit' is a case in point. In the second place, the internal dependency may be increased because of the nature of the implementation task of the renewal within the school. This task usually has a complex character and is at least initially rather vague and not worked out in the context of a large scale renewal.

These conditions place new demands on the functioning of the school organization. The changed external dependency and the regulation conditions necessitate changes in the procedures for formulating and deciding on educational policy in accordance with national educational guidelines. Of course, schools have always had to deal with legislation concerning them and have always been dependent on external authorities for funds. However, with the arrival of large scale educational renewal, schools are no longer able to respond to these developments in the programmed, standardized manner to which they are accustomed. Schools are forced to seek various kinds of information from within and outside the organization, to collaborate with other schools, to make best use of external consultancy resources, and to negotiate about resources. At the same time the character of the innovation and its related implementation process can necessitate

more collaboration and coordination both among teachers and between teachers and school leaders, students and parents. These intensified requirements for coordination and collaboration may be necessary to prevent that the essence of renewal - the innovation concept - gets lost because teachers bent it to their accustomed routines.

Our expectation is that schools engaged in the context of large scale educational renewal will need to become more integrated, that is, to be able to rely on the coordinated efforts of different persons and subunits in the service of a joint effort. The actual coordinating activities, however, may vary depending on, among other things, the kind of dependency relationship which is salient. However, given the conditions of uncertainty and the sometimes conflicting interests which are frequently found, there will typically be 'coordination by mutual adjustment'.

Finally, we assume that the increased pressure for integration and coordination makes demands on the school organization for more definite control. As long as external and internal demands are routine or ask for small scale changes only, they can be controlled by routine procedures, and it is not necessary to make explicit differences in power in order to reach a decision. But faced with the problem of having to make non-routine changes, i.e. implementing the new and complex educational program, the school will be forced to differentiate more on power lines. In addition to the demands of non-routineness the implementation process, of its nature, demands increased coordination, as the various efforts of many individuals and groups are orchestrated to achieve the desired outcome - implementing the new program, the new school.

For these reasons the role of the school leader merits attention.

To summarize: Today many school organizations are being confronted with the demands for complex, large scale educational renewal, frequently accompanied by incisive budget cuts. These developments increase both the external and the internal dependencies. These

changes require more integration and coordination in the school. In relation to the outside world the school has to learn how to operate as a unit. Within the school integration increasingly takes place through coordination by mutual adjustment. The control structure of the school will be activated to deal with the new challenges and with the greater need for integration.

In the next section we discuss these ideas in the light of some current notions from organization theory applied to schoools.

2. The school as an organizational unit.

In a recent research proposal having the theme 'the management of implementation processes' the following sentence occurs: 'schools are subject to criteria of rationality. Teachers ought to strive for objectives in an effective and efficient manner. The management of the school can substantially influence the realization of this task'.

This statement in its uncompromising clarity is in fact as provocative as Weick's statement that schools are 'loosely coupled systems' or March et al's reference to 'organized anarchies'.

Any school leader or educational consultant who wished to introduce more intensive organizational integration into the school, would, if he read the literature on school organization in seventies, become somewhat disheartened. Authors like Weick (1976) and March (1976) take an extreme position: they contend that the school organization is characterized by such loose coupling between the various subunits that the achievement of concerted action is normally difficult and even where it is achieved, its effects evaporate easily. To put it another way: 'stimulus-response relations' within school are seldom direct or immediate.

This overall conclusion has a number of different theoretical roots. From an evolution perspective of natural selection, (social) systems

develop a more loosely coupled structure under conditions of increasing complexity. The very lack of integration increases the flexibility of the system and makes it more suitable for 'multiple adaptation'. On the other hand, the metaphor of organized anarchy gives the concept of loosely coupled systems an extra dimension: loosely coupled here refers to the relationship between objectives, activities and outcomes. The argument runs that since educational objectives are complex and difficult to state precisely, since the technology is unclear and since there is a varying degree of involvement and participation of the members of the organization, coordination and decision-making cannot exhibit the orderly progression beloved of rational decision-making models. Consequently, the reference to 'organized anarchy'.

In the quatation above to management and implementation processes there is an implicit reference to the bureaucracy model. 'Criteria of rationality', 'the need for effective and efficient carrying out of duties by teachers' and 'the influential role of management' all point in in this direction. Various authors though, including Weick and March cited above, have attempted to demonstrate that school organizations differ from the bureaucratic model in some essential aspects. In the context of this chapter relevant illustrations of these essential aspects are the relative absence of a clear hierarchy and of a 'disciplinary' structure in the organization. The hierarchical structure of most schools is relatively flat. Teachers as individuals or in groups usually have considerable autonomy in carrying out their teaching activities in the classroom. This degree of autonomy is usually explained by reference to the professional nature of the teachers' educational task. Their actions are not determined by the rational goals of the bureaucratic system, but by his/her knowledge and skills acquired through professional training. Thus the school is not a 'bureaucracy' but closer to the concept of a 'professiocracy'. Attempts at bureaucratization in the school run counter to this model of organization. This makes it difficult for school leaders and administrators to work effectively according to the norms of a formalized, bureaucratically designed organization. Consequently, they are more likely to try a collegial approach using discussion and persuasion, rather than the power of their position which is legitimized by the bureaucratic model. This concept of the school

organization as a 'professiocracy' is not without its critics who tend to perceive the resistance to bureaucratization as an illegitimate attempt on the part of teachers to maintain their autonomous (power) position.

The concepts bureaucracy and professiocracy as we use them here, are linked by Mintzberg (1978) in his concept of 'professional bureaucracy'. His conclusion is that both the traditional bureaucratic model and what we have termed 'professiocracy' are suitable for routine activities which lend themselves to standardization of work processes or skills, but are inadequate when innovative capability is required, their natural tendency being to try to assimilate the new situation or program into existing routines.

In the perspectives with which we just dealt, the emphasis has been on the difficulty of achieving integration in the school organization because of the absence of an unequivocal hierarchy and the loose coupling of the (autonomous) subsystems. However, there are authors who believe that schools can be much more tightly coupled and controlled. They refer to the possibility of regulation from the surrounding, institutionalized society. For instance, Meyer and Rowan (1978) state 'education is a certified teacher teaching a standardized curricular topic to a registered student in an accredited school' (p.94). This definition, although here quoted slightly out of context, nonetheless illustrates the forceful institutional regulation or control to which schools must submit because their function is to be a 'sorting mechanism' for society. Sorting mechanism means that the selection, qualification and allocation of pupils, and aspects having to do with these functions are usually tightly coupled and controlled by society and by institutionalized education. This also relates to such things as the location of the school, directives for the curriculum, exam standards, the appointment requirements for teachers, entry requirements for students and the custodial requirements of the system (Deal and Celotti, 1977; Spence et al, 1978). But once these topics have been fixed, what happens within the walls of the school building is a matter of trust and confidence (see Miles, 1981).

Meyer and Rowan (1978) speak of a 'logic of confidence' - reasons why school leaders or administrators only marginally control the core processes of teaching and in fact avoid direct surveillance of the internal processes of the school. According to Spence et al (1978) this marginal control suffices because the behavior of teachers as well as of students will be regulated by the institutional controls referred to above. However, these controls do not direct their behavior to the achievement of the core functions of the school -the learning and growth of students. Thus, Spence et al arrive at a somewhat cynical conclusion: 'If custodial supervision and evaluation of students, not instruction, are viewed as the central activities of schools, schools look like other bureaucratic organizations' (1978, p.11).

Authors from various organizational perspectives are equally pessimistic regarding the feasability of coordination as referred to in the first section: organizational integration as a process of 'mutual and continual adaptation'. This integration does not exclusively and primarily serve a societal sorting function of schools. It can also be directed to optimizing learning processes for individual students in the school. We indicated that from a functionalist point of view a certain lack of coordination can have positive outcomes as it enhances the flexibility of the system. However, we contend that implementing (complex, large scale) innovations, in the service of school improvement, will lead to intensifying organizational integration. In the following and last section we will illustrate some aspects and problems of organizational integration as related to a concrete large scale innovation project.

3. Organizational integration in a large scale renewal project: an example.

We are engaged in a research program to study the processes of integration and coordination in schools during the implementation of complex, large scale innovations. One of the research projects is situated in the context of the New Basic School program in the

Netherlands.

At national level a new policy was evolved to create a new educational system for young people between the ages of four and twelve, which would be entrusted to a new type of school, known as the Basic School. What had formerly existed as separate educational entities, i.e. kindergarten and elementary school, each with its own curriculum and self-contained managerial structure, would by 1985 have to change into the New Basic School. At the local level, kindergarten and elementary schools are required to amalgate. However, they also have to develop a new integrated curriculum with new teaching methods and a unified managerial structure, in accordance with broad specifications as to the educational philosophy of the new school formulated at the national level.

Consequently, at the local level schools are faced with a complex implementation task, involving radical educational, curricular and organizational changes. This task confronts the school with a need for increased coordination.

Where do these requirements for increased coordination stem from? Below we present three sources.

Firstly, particularly in the process of implementing, coordination and control are essential to maintain and protect the integrity of a complex innovation concept: the coherence of the educational philosophy, its curricular principles and content, and its related school concept and administrative structure. For example, the Basic School concept implies new classroom structures for the differentiation of student learning, new faculty tasks and configurations, other definitions of school-parents relationships. These various innovation components possess a certain degree of coherence. However, implementing implies building and constructing on the 'shop floor', and in this mundane process of implementation the coherence and integrity of the innovation run the risk of disintegration, of falling apart into educationally loosely coupled pieces. Even if one holds the

'mutual adaptation' view on innovating, this risk of compartmentalizing the innovation into practically unconnected components must be taken seriously.

Secondly, in the previous section we indicated that implementation, by its very nature, requires coordination, to orchestrate the various efforts of many individuals and groups in the achievement of the desired outcome -the new program and the new school. In essence, implementing the complex innovation is a fragmented, 'nuts and bolts' affair, involving a series of rather discrete activities, carried out usually by disparate individuals and subgroups (see Van der Vegt and Bruining, chapter). Throughout the building, teachers and school leaders are working on a variety of implementation tasks, that is, in the classroom, in faculty settings, in and outside the school, while receiving and generating information on how parts and components of the innovation look and work in actual practice, Implementation is not everybody participating in the same familiar task, but everybode pursuing their segment of the total, complex and somewhat unfamiliar task. These diverse, discrete and concrete implementation activities call for coordination, to steer and to manage the process. The third source for coordination refers to external regulation. Recognizing that developing the new school would involve a change of no small dimensions, the government made available special funding and facilities for schools which took the initiative in proceeding rapidly with the innovation. It is hoped that the experience of these schools will show the way for the rest, demonstrating that it is possible to change, documenting pitfalls on the way and finding out how these could be overcome. Schools which take this option acquire 'project status'. A specific part of the strategy behind devoting special funds to these schools is to equip them with the knowledge and skills necessary to manage integration and coordination, and thereby to bring about the desired change.

We have already mentioned the idea that the fact of accepting special funds for the implementation of an innovation puts the school in the position of being a contractor in the field of

educational and organizational change. As such, it has to deal with the requirements set by an external (funding) agency of accountability and reporting procedures concerning the renewal project, how it will be controlled and evaluated. The school receives facilities for its project but in return has to manage the project and give account of that management. Our assumption is that these external demands will induce effects in the organization, which, however, have to be geared towards the ultimate objective -implementing the New Basic School.

We conclude that the demands for increased coordination stem from three sources: (1) the multiplexity of the innovation concept, i.e. the interrelatedness of its various components; (2) the very nature of the implementation process, i.e. the discrete implementation activities and tasks which are carried out by disparate individuals and subgroups, throughout the school building; and (3) the 'project status' of the externally facilitated implementation activities in the organization, which presents the school with a new set of administrative requirements for external and internal control.

The considerations above lead to the following questions, relevant to our study:
How will the *innovation concept* in the process om implementation and coordination be developed and 'bent' within the school, and How does the *school organization* adapt to the powerful external and internal demands for integration and coordination? While we will approach these questions in an exploratory way, we are nonetheless guided by the theoretical considerations outlined in the previous sections. We propose to relate organizational integration to coupling patterns, and to control patterns within the organization (power).
Two propositions will illustrate this.

Proposition 1.: *Implementation of complex innovations necessitates new coupling patterns or puts existing weak couplings under pressure.*

Earlier on we concluded that conditions for large scale renewal have implications both for the nature and intensity of dependency relations within each school involved, and for dependency relations between the school and its environment. In the second section, schools were characterized -from a specific theoretical perspective- as 'loosely coupled systems', i.e. as organizations whose dependency relations do not bring about tight coupling between structural components, processes and events. Weick, although a major proponent of this view, does not refer to dependency relations but to coupling mechanisms. In our view, however, this concept relates to the same phenomena. Weick identifies the 'technical core' and the 'authority of office' as prominent coupling mechanisms operate to a lesser degree, having a low impact, consequently, making schools loosely coupled systems. The type of dependency relations or coupling mechanisms present in the organization is manifested in clusters of work procedures, activities and events. In short, they - dependency relations or coupling mechanisms - develop into *coupling patterns* which link persons, groups and (s/b)-systems.

Weick (1976) advocates thorough and concrete descriptions of coupling patterns in schools. These descriptions provide insight into 'checks and balances' in the organization, into localized controls, stabilizing mechanisms and subtle feedback loops which keep the organization in a stable state. They are important for practitioners -school leaders, administrators and consultants- who wish to know how and with what effectiveness their attempt to influence will spread through the organization.

Current coupling patterns in organizations have a 'history', they are more or less fixed and settled, and usually fit the execution of the routine activities, both educational and administrative. We expect that these existing coupling patterns, typical for a 'professional bureaucracy' type of school, will not be adequate for the implementation of the complex innovation, entailed in, developing into the New Basic School. As mentioned above, we expect that the implementation processes will put the existing couplings under

pressure. That is, dormant ones could be activated, others could prove to be ineffective in coping with actual implementation tasks, whereas new couplings will have to be developed. Consequently, the members of the school organization will be involved in the process of adapting to new coupling patterns, of redefining existing ones, and of developing new linkage patterns.

An illustration of how the environment can affect couplings is provided by the work of Rubin (1979). She studied the relationships between loosely coupled structures of (university) organizations and their flexibility to adapt in time to worsening economic conditions. In times of budget reductions couplings between vertical sub-units, such as university faculties and their governing bodies, need to become more tight to carry out measurements for budget reduction and re-allocation programs. Rubin investigated the functioning of coupling patterns in the context of implementing measurements for budget reduction. As will be clear by now, we take as our starting point the environmental demand of implementing a complex innovation concept.

We assume that tendencies to low degrees of integration (decoupling and organizational differentiation) are prominent in schools, having almost the status of 'natural' processes' while integration and coordination will have a 'forced' character' requiring a lot of energy to become installed. Since increasing integration is not a goal in itself, we need to be specific as to what aspects or organizational levels will be subject to integration, that is, to coordination. Therefore, in studying (changes in) coupling patterns in implementing the New Basic School, one will have to establish which changes in couplings are in fact required by the innovation concept. Examples are: increasing dependency with respect to policy issues (e.g. joint pedagogical and didactic choices) requires tighter linkage or coupling between teachers, administrators and parents, or: increasing (external) dependency with respect to the justification of task performance or the acquisition of resources demands tighter coupling between the school leader and funding

agencies. In our study we pay attention to those factors that hamper or facilitate these changes in couplings. What interpretations or cognitions are used by teachers who object to increased integration? What actions will be taken to escape from the coordination requirements? Equally, what interpretations or cognitions are used by those who promote or welcome integration? In short, we focus on how existing coupling patterns evolve to patterns linked and geared to the innovation concept.

In this context, the relationship between intensification of integration and increasing conformity pressures will be explored. We are dealing with a nationwide innovation for which - on the local level - our schools recieve special project facilities. In this respect, an important question is whether intensified integration is directed towards implementing the core of the innovation concept or merely towards conforming to (formal, funding) demands originating from the environment. Rowan's observation is of relevance. From his institutional perspective he points to the risk for the school which exists in a strongly institutionalized environment: '..resource mobilization and organizational success depend on conformity to institutionalized norms and standards' (1981, p.48).

The 'project status' schools in the New Basic School program are in a rather strongly institutionalized environment in that the central authority determines various rules, regulations and procedures. We will investigate the influence of these external regulations on the schools, particularly with what strategies or scenario's the schools respond.

Apart from conformity to external regulation there can also be internal conformity arising from specific interpretations of the innovation concept, that is, interpretations by the various groups or individuals within the school building. To what extent will alternative interpretations be tolerated as the deepening of the integration process proceeds?

Interpretation of a complex innovation concept such as the 'New Basic School' is open to influence from ideological principles. What does the 'individualization of education' mean? Or for that matter, what is the meaning of 'developing social creativity'? Hazewinkel (1980) warns that where normative views, i e ideology is a prominent coupling mechanism, a tightly coupled system can become full of conformity pressure and unfreedom.

Under these conditions, dysfunctional conformity can emerge, in other words, increased integration results in either superficial, external adherence to regulation requirements or in activities based on ideological views on the innovation concept, without an overall commitment to a shared definition, winding up in the position of devil's advocate, pointing out that intensifying integration in the school leads to many things but not to a real improvement of education.

Our second proposition reads as follows.
Proposition 2.: *Intensifying integration through changing coupling patterns activates differences in influence, implementation activates power processes in the organization.*

The previous paragraph is a prelude to this proposition: the increased need for coordination during times of implementation implies activating influence and power issues in the school and redefinition of the power differential in the organization. Increased integration stems from three sources, as we mentioned above. They point to a need for intensified organizational coordination -to put and hold things together which, while implementing, can easily fall apart, become disintegrated. 'Coordination' implies organizational power of some sort, to direct, to control and to steer the implementation activities. It is characteristic of implementation processes that they force the organization to reorganize along the power dimension. In this process, the organization and its individual members are confronted with the dilemma of finding a balance between *centralization of power* (in the service of coordination) and *member participation* (in the service of carrying out concrete

implementation activities, and of building commitment).

The typical control structure of the school organization has been well documented in the literature (Lortie, 1975; Hanson, 1976, 1977; Mintzberg, 1979). What comes to the fore from these is the existence of two zones of influence and the balance between them. The reality of both of these zones is expressed in the concept 'professional bureaucracy'. In one zone are the school leaders and administrators, their power legitimized by external authority. In the other are teachers, their influence and autonomy deriving from their professional activities. If possible, the two zones try not to disturb each other ('logic of confidence'). Moreover, teachers expect that school leaders will act as a buffer, protecting them from 'interfering' influences from the environment.

Implementing significant changes, however, means disturbing this balance between the two zones. Influencing, steering and regulating become essential activities. For both zones uncertainty increases. They become much more dependent on each other as their destinies with respect to desired outcomes become more closely interwoven. The increased uncertainty -i.e. zones and boundaries are at stake- and the increased dependency imply an increase in the degree of integration towards 'mutual adjustment'.

The recent emphasis in the innovation literature on the position of the school leader (e.g. Leithwood and Montgomery, 1982) has been interpreted by us as the (re-)discovery of the power variable in implementation processes (Van der Vegt and Bruining, in this volume). The school leader is faced with an extension of his/her tasks or territory. He is in fact placed on the boundary between the two zones (cf. concept of curriculum manager). In our innovation project the school leader finds himself in a more integrating position. Teachers, on the other hand, become more directly involved with aspects of the organization, expecially with the

school's educational and organizational policies.

Problems of influence at the school level are usually approached from the position of the school leader. Leithwood and Montgomery (1982) present a thorough analysis of a large number of studies into the role and effectiveness of the elementary principal in Canada and the U.S. They arrive at the following characteristics of the effective school leader: '..effective principals are able to define priorities focused on the central mission of the school and gain support for these priorities from all stakeholders. Their actions impinge on almost all aspects of the classroom and school that are likely to influence achievement of these priorities' (p. 35).

As the role of the school leader in the implementation process becomes more central, the behavior of teachers becomes a critical condition for school improvement: centralization-for-implementation but also their participation in putting into place the innovation are basic issues which confront teachers and school leaders.

In the literature frequent mention is made of professional autonomy and of the preference for collegiality rather than hierarchy. There is a tendency to assimilate innovation attempts into old and secure routines, and there is a lack of incentives for integration and co-ordination. These observed tendencies seem to run counter to the basic implementation demands mentioned above. In the context of implementation, careful study of the relationships between these tendencies is needed.

A decade ago Zaltman, Duncan and Holbek (1973) made a stimulating start with their study of the influence of organizational decision-making and power distribution on innovation processes. They concluded that centralization of power has different effects at various stages of the innovation process. Centralization is crucial at the implementation stage, less so at the initiation stage which calls for autonomy and a minimum of control. We are not aware of any research on the effects of systematic variation of centraliza-

tion attempts in innovation processes. It occurs to us, however, that to manipulate power distribution systematically on the basis of the essential requirements of the stages of an innovation process is likely to conflict with the prevailing egalitarian norms of the school organization.

We are also open to the possibility that while implementation requires reorganization along the influence/power dimension, there is also operating a tendency towards a more permanent solution of the control structure problem, that is, a control structure which will be effective under all conditions (e.g. Veen, 1982).

SUMMARY:

In this article we explore the effects on the school organization of demands from implementing a complex, large scale innovation. We outline a set of considerations which indicate that this will bring the existing (weak) coupling patterns and the school's internal control structure under increasing pressure. Finally, we have sought to make explicit questions related to these topics, which we are now proposing to investigate empirically.

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HOW SCHOOLS SUSTAIN SEX-ROLE INEQUITIES: AN OUTLINE FOR A PROGRAM OF ACTION RESEARCH

The organizational processes of schools support different educational experiences and opportunities for males and females--in the way work is differentiated by sex, in sorting males and females into segregated activities, and by helping boys more than girls prepare for the prestigious and well-paid jobs, thereby perpetuating sex stratification.

Differentiation is a systematic way of distributing tasks, scarce resources, privileges and burdens among members of a society or a group. Differentiation by role and by status occurs in all societies, and societies also differentiate by sex. Although different societies may attribute different roles to women and to men, as a general rule women's roles hold lower status than men's roles. For instance, women primarily comprise the medical profession in the Soviet Union. In the United States medicine is primarily a man's role. Yet in the Soviet Union the role of medical doctor carries less status and accrues less income than in the United States. Roles are also differentiated by sex in the schools; men are the managers of women. Differentiation by sex also occurs in other settings; family tasks are often assigned by sex. Females carry out chores inside the house and males do chores outside the house. The sterotyped picture of the "real" American family, for instance, portrays a father and husband who is employed outside the home while the unsalaried female cares for the children and the home. In reality, however, this stereotyped picture is true only of about 16 percent of American households (Ms., p. 43, August 1978).

Segregation is the process of separating; setting apart, sorting or differentiating on criteria such as race, age, social class or sex. For instance, schools commonly segregate by age; six years olds are first graders; twelve year olds are sixth graders. In most cities

neighborhoods are segregated by social class and race. Segregation may occur by having laws or regulations which differentiate between people. Signs which read "No blacks need apply" or "Man Wanted" are part of our cultural heritage. Many of the laws and regulations which segregate on the basis of sex, age, race, and handicap have been changed. Yet the fact of changing laws does not, in itself, end the custom of segregation. Tradition and custom still influence people's behavior and organizational patterns on the basis of sex.

S t r a t i f i c a t i o n. In sociology, social status has been designated as an important variable for understanding social interaction. Status signifies the worth given to an individual and is frequently determined by one's occupational role. A Supreme Court justice has more status, for example, than a secretary. Status may also be determined by income, by education, and other variables such as expertise. As early as 1908, Simmel wrote, "The first condition of having to deal with somebody is to know with whom one must deal." Sex is a status characteristic in our society. Indeed, being male or female communicates certain status characteristics, not only symbolically but also behaviorally.

How the School Organization Supports Sex Inequities

Five interrelated features of school organizations tend to create and perpetuate sex inequities. Each feature influences students' view of themselves as well as helps to form the way students might think about what is "true, good, and beautiful" in the adult culture. In particular, each of these school processes helps shape a student's self concept as a male or female.

Sex Inequities are Communicated through Curriculum Content

One evening while our daughter was doing sixth grade homework in math', she threw down her book in exasperation and exclaimed. "I'm not even supposed to be able to do math! In these story problems, there's (sic) only two problems about girls and both girls are stupid." She was, of course, reading into the implicit meanings of curriculum. Curriculum content communicates about sex differences and perpetuates inequity.

Boys and girls are differentiated in overt and covert ways.

One of the most thorough empirical studies on this topic was carried out by Carol Jacklin and associates (1972). Analyses were done on 270 stories that are frequently used in elementary schools. The findings indicated that most main characters are male, and even as minor characters, males greatly outnumbered females as characters. Also even when the stories have to do with animals or cartoon characters, the main characters are invariably males. In addition, their study indicated that when girls are depicted, they are often shown passively following directions or sitting on the side lines as an observer, while boys are depicted to be much more physically involved and at center stage, rendering commands and engaging actively in problem solving.

Girls may learn the implicit messages communicated by books. They may, for example, learn to be passive and let a "man take charge." Some researchers also are concerned about the messages that boys may internalize. Too often boys are presented as "supermen," doing daring and courageous feats. All boys will not grow up to be Danile Boone or the President of the United States. Representations of boys in textbooks may not help prepare them for the lives of husbands, fathers, and workers any more than the texts help prepare girls for the challenge of an industrial world.

Also curriculum frequently presents adult males and females in stereotyped ways. Even though 41 percent of the paid labor force in 1977 was comprised of women, in stories they are invariably portrayed as housewives who do not work outside the home. Wietzman and Rizzo (1975) analyzed the illustrations presented in a variety of texts from science, math, social studies, reading, and spelling. Regardless of the specific curriculum content, white males were overrepresented, especially when adults were illustrated. Moreover, in terms of jobs, the men were shown in over 150 different occupations. Women were portrayed in only four occupations!

In another study, Lord (1976) explored the effects of sex labeled occupational roles on young children's images of males and females.

One group of youngsters studied occupational roles with no sex labels (i.e., fire fighters, law enforcement officers, and mail carriers), while another group studied occupations roles with the more conventional sex labelling (i.e. fireman, policeman, and mailman). When asked to draw a picture of a "firefighter" or a "mail carrier" the children using the nonsexist titles were more prone to draw pictures of either males or females. Those children using the conventional materials drew pictures of males only. Thus language helps to form the images we hold of ourselves. These examples also hold true in the educational texts used by future teachers. Moreover, university texts also use sex stereotyped roles (Sadker and Sadker, 1978, Schmuck, 1982).

Sex-role stereotyping appears too in educational tests. An examination by Tittle (1973), of eight major achievement tests, showed that "with one exception, each test battery had a higher frequency of usage of male nouns and pronouns than female nouns and pronouns," i.e., subjects who could have been either male or female were more often referred to as "he". In addition, stereotypes were used in similar ways to those in the texts. The test items often suggested that young girls cook or shop, while boys camp, hike, and play physical games. Items having to do with adult occupations with high status, such as the presidency, doctors, or professors are always referred to as "he". Teachers, on the other hand, were referred to as "she".

The examples given above illustrate the use of stereotypic ideas and words in the construction of tests. However, the administration of the tests can also have different influences on boys and girls. For instance, in one school a test for placement in extreme learning problem classes was given only to boys. When questioned, school officials replied that there was no reason to give the test to girls, for boys were the only ones with reading problems. In this case, the stereotypes probably reinforced boys' predominance in special classes while they also served to delay girls' access to these resources.

In other cases the view that women and men should only be in certain occupations may limit the usefulness of the tests and subsequent advice given by counselors. Some vocational interest tests, for example,

traditionally have had both male and female forms. The female forms yield scores related to the traditional occupational choices of females, while the forms for males relate more traditionally masculine areas. Thus in vocational tests girls may not be given the career options that are thought of as male jobs, and boys not be given the idea they can perform jobs that have been traditionally female. Counselor's perceptions of the sex-typed nature of occupations may also influence the advice they give to students.

Thus the materials used by schools for student learning serve to create and perpetuate differential behaviors, attitudes and performances for males and females. These symbolic events in the school's operation clearly are part of the problem of inequity in education.

Sex Inequities are Communicated Through Teacher-Student Interaction

Teachers do not interact in the same ways with all students. Behaviors arising out of any interaction depend in great part on the personalities, the styles, and the relationship between the people involved. Teachers come to know individual students and to have expectations about how they will work and achieve. Thus different teacher behaviors toward particular students arise out of the differential expectations that the teachers hold for those students. Such expectations involve making both cognitive predictions about how students will behave and assesses the student who is expected to do exemplary work differently from the student who is expected to get into trouble.

Teachers, too, are exposed to the cultural stereotypes that pervade American Society. The visible minority groups--Afro Americans, Mexican American, Native American, Asian American are continually faced and must cope with pervasive stereotypes about themselves. Teachers develop expectations for individual students in part from these cultural stereotypes.

Expectations as interpersonal predictions are communicated in many direct and indirect ways. In particular the evaluative aspects of a teacher's expectations for students can lead the teacher to treat the student being evaluated as though the assessment were valid.

This is the self-fulfilling prophecy. The teacher may anticipate or even predict that the student will act in a manner consistent with the assessment. Social class is one useful predictor of differential treatment by teachers.

In one study, Rist (1970), docemented how first-grade teachers perpetuated a social class hierarchy within classroom by assigning students to reading groups according to their socio-economic background. Unwittingly the teachers placed middle-class children in higher level reading groups than the lower-class children. And in another study, student residence gave rise to different teacher expectations. Finn (1972) showed that teachers serving suburban schools held higher expectations for the academic performance of their students than teachers in urban schools.

During the past few years, awareness also has been raised about the detrimental impact of stereotyping the sexes. In one study of first-grade classrooms, Palardy (1969) asked teachers to indicate whether boys could learn to read as fast as girls in the first grade. For those teachers who did not expect a difference in reading performance between the sexes, there was no difference by the end of the year. But, those teachers who expected the girls to learn to read faster than the boys typically fulfilled their predictions. In another study of seventh-grade classrooms, McCandless, Robert, and Starnes (1971) found that boys received lower grades than girls, even though the boys' scores on standardized achievement tests were not lower than the girls' scores. Thus, the expectation that boys will not perform as well as girls, may lead to differential teacher evaluations.

Several studies have investigated teacher behavior in relation to boys and girls. These differences appear in pre school, in early primary grades, and in upper elementary grades. Teachers interact more with boys than with girls; much of this interaction is in scolding or blaming. Yet even when girls are scolded or blamed the interaction looks different than when boys are scolded or blamed. Teachers use louder, harsher voices with more controlling language when scolding boys compared to girls. Girls are more often blamed by teachers for not knowing something, boys are more often scolded

for breaking the rules (Guttentag and Bray, 1977; and Jackson and Lahaderne, 1967).

Yet, not all boys receive more disapproval from teachers than girls. While boys are more often criticized and reprimanded than girls, boys are also questioned more than girls and have more ideas accepted by their teachers. Although girls volunteer significantly more often than boys, they are called upon less often (Felsentahl, 1971). Most of the negative interactions with boys in classrooms are directed towards boys with behavior problems who may also be underachievers. Yet girls who are underachievers tend to be more quiet or withdrawn than disruptive. Because teachers tend to give attention based on both students' achievement and behavior, underachieving girls may receive little attention from the teacher either for their achievement or for their behavior.

Teachers tend to relate to boys and girls in very different ways within the school. Through their behaviors teachers communicate different expectations for boys and girls and those expectations have an impact on shaping the self-concepts of members of the two sexes.

Sex Inequities are Communicated Through Peer Group Interaction

In one kindergarten class the children were preparing for a parent open house. The teacher asked what kinds of things the children wished to show their parents. The children responded, "You should show our fathers the shop and you should show our mothers the play kitchen."

In one high school a female student came into a counselor's office crying. She wanted to sign up for calculus but was told by her girl friends that if she took calculus no one would invite her to the senior prom.

The culture of the peer group also helps to perpetuate sex typing in the school. Students, of course, enter and proceed through school as actors involved in the career culture. Through their experience with the media, with adults and with their friends they come to hold explicit ideas about what is appropriate play and work for males and females. Children, as early as five, enter school with preconceptions of play and work that are appropriate for boys and girls. Charles Schultz in his

Peanuts cartoon illustrated it well. Sally muses to herself:

-- I never said I want to BE someone...
-- All I want to do when I grow up is to be a good wife and mother
-- SO
-- Why should I have to go to kindergarten?

Ten year old boys and girls have already sorted out their occupational aspirations and fourteen year old boys and girls have even clearer images of how they will live out their male and female roles. Boys identify themselves by their occupational choice as truck driver, astronaut, scientist or architect. Girls often identify themselves with an occupational role as well as the role of wife and mother. Although most boys will become fathers and husbands seldom do they talk about those roles. The adult male is identified through his occupational position. Warren Farrell (1974) points this out in his book "The Liberated Man", while he acknowledges that women too often are viewed as sex objects, he suggests that men's counterpart is being viewed as a "success object".

Peer interactions in school reinforce students' sex typed social, academic, and occupational roles. By adolescence, girls' academic performance becomes depressed because girls have learned not to "outperform" boys. Upon inquiry many females reveal the fact that they lower their performance when interacting with males.

Within male and female peer groups there are different norms which reinforce sex typing of behavior and achievement. Girls more often form close one-to-one relationships with other girls and develop intimacy. Boys form less intimate friendships in the groups or gangs which support them in their development of independence and competition. Thus within some male and female peer groups different standards form and different behaviors are accepted. Girls share their intimate secrets in late night pajama parties, boys develop their independence and competitive spirit in the rough and tumble of sports and demonstrate intimacy mostly in indirect ways.

And when boys and girls come together in the school, the norms of the different-sex peer groups come into play. For instance, boys and girls tend to react differently to competitive situations. Studies by Benton

(1973) and House (1974) showed that females do not predict that they will be as successful on tasks as boys do, particularly when the competitive aspects of the situation are strongly emphasized. Yet when girls are asked how they will perform in situations where their performance is not to be compared to others, their estimates of ability are similar to boys. The image of the competing female is not consonant with a cultural image of the supportive and nurturant woman. For this reason, females in competitive situations frequently lower their expectations for success as compared to males.

The different roles played by boys and girls in school are also illustrated by studies that have investigated the participation of males and females in work groups. All work groups have certain roles which get played out; somebody takes on leadership roles, somebody initiates ideas and gives opinions, someone makes sure everyone has had their say and is supportive of other people's ideas. When girls are in all female groups and when boys are in all male groups these functions are played out by a variety of group members. In all girl groups, for example, girls initiate ideas and take on roles involving leadership as well as support roles; and in all boy groups, boys play out the supportive and nurturant roles as well as assume leadership initiative. Yet when boys and girls are working together many of the tasks become sex typed; boys initiate ideas and assume leadership roles and girls become the supporters of the other people's ideas.

Peer groups, especially adolescent peer groups, have strong norms regarding appropriate sex role behaviors. Class sex segregation is often supported by the peer group norms; it is against the peer group norms for girls to take shop classes and for boys to take "home-ec" classes. Even though the regulations of Title IX prohibit sex segregation in classes, the informal customs and norms of the peer group reinforce the segregation of the sexes outside of class. Vacha in observations of childrens' culture in second and third graders showed how boys and girls play different games on the playground although the sex stereotyping of games was not as strong as when the children grew older (Vacha, 1974).

The sex typed socialization provided to males and females in the larger culture leads us to predict that in classroom situations females will defer to male leadership and be supportive of other people's ideas rather than their own. One might expect that in classroom discussions or group activities boys will be more active than girls, initiate more ideas and assume more leadership functions. Students are influenced by the sex stereotyped images of what is appropriate work and play for males and females.

Sex Inequities are Communicated Through Differential Access to School Offerings

While boys and girls have had equal access by law to most schools since 1912, it took 60 years more before segregating boys and girls in relation to the school's offerings was outlawed with passage of Title IX. There is, of course, even now a considerable gap between the law and its implementation. Boys and girls continue to face separate and unequal experiences in relation both to offerings in extracurricular and in curricular areas. Segregation of the sexes continues to be evident.

Differential Access to Extracurricular Offerings

Even though the regulations of Title IX require schools to produce plans to provide equal opportunities for males and females in school sports, preliminary evidence indicates that girls practice at times when boys aren't using the gym, and coaches of girls' teams are usually paid less than boys' coaches. Newspapers continue to headline the results of boys' games and rarely mention female athletes.

Although the practice is not as common as it once was, women sometimes are not allowed to play the same games that men play. A few states still restrict women to half-court, six-woman basketball instead of the faster moving full-court, five-person game of the boys. The Title IX regulations allow women to play on men's teams or males to play on female teams when they have the skill and when no same-sex teams are available. Yet, the sexes can still be segregated legally in games defined as contact sports--a category that now extends from football, through soccer and rugby to basketball. Usually it is the girls that are excluded. Thus, some girls may be kept from participating in any

spectator sports if their skills do not match those of the boys and if there are not enough girls who want to create their own team.

Segregating and limiting females' participation in sports may have implications beyond simply equal opportunity to participation in sports. While it is impossible to tell the effect of team participation without data from longitudinal reasearch, some argue that participation in team sports may have many indirect benefits. For instance, opportunity to engage in cooperative activities with other players in a competitive setting may provide experience in learning some of the skills necessary to become a leader. In addition, the camaraderie of team sports that takes places during the build up to win, the celebration of victory, or the dejection of defeat may be related to developing survival skills needed in a complex society.

A recent book titled, "Games Mother Never Taught You" points out some of the potential consequences of males' differential experiences with competitive team sports. Author Betty Harrigan (1978) argues that team sports teach cooperation and competition simultaneously. A player must cooperate with others to score a touchdown or to shoot a basket, yet is at the same time competing against another team. Players of team sports learn to take risks, they learn to be interdependent with others and they have valuable experiences of coping with losing as well as the exhilaration of winning. Boys, more often than girls, have those experiences.

Many educators criticize the emphasis on competitive sports in school. We agree with such criticism and believe that there should be diminished importance given to competitive sports in school. Yet, despite regulations offering equal opportunity, the fact remains that competitive team sports provide unequal experiences for boys and girls.

Sex segregation also appears in extracurricular activities other than team sports. Males belong to the Chess Club, Science Club, and Letterman's Club more often than females. Females more often belong to the choir or glee club and aspire to the Rally Squad. Even though both males and females may perform in the band, they generally play different instruments and have different responsibilities. On school newspapers and in student government, boys and

girls typically have different roles. Boys are more often sport editors, girls are feature reporters. Boys are usually student body president, girls are usually the secretary. Even in elementary school, games during recess are often segregated by sex and different classroom or school chores are assigned by sex.

The culture of the school provides differential access to its extracurricular offerings to boys and girls, even though laws aim to diminish the differences.

Differential Participation in Courses

Sex segregation also persists in academic and in vocational areas in the school curriculum. This, of course, is most apparent in junior high schools and high schools but preliminary degrees of segregation may also occur in the elementary schools.

Vocational education classes are clearly differentiated by sex, by students enrolled, and by teachers. In the schools, males and females are trained in vocational education programs for very different jobs despite the fact that almost half of all women 16 years old and older are in the labor force, and most of these women are working because of financial necessity. Yet, women still are typically in occupations that have been traditionally female, receiving wages far below the average wages of men. The problem in the wage discrepancy comes not only from "unequal pay for equal work," but also from the fact that men and women have different kinds of jobs and these jobs pay differently.

Roby (1976) examined sex segregation within vocational education and found women mainly in the clerical or home economics areas. Men were more evenly distributed throughout all the areas but were most highly concentrated in the trades and industry. While a large proportion of the students in vocational education programs related to health, home economics, and office work were female, very few of the students in agriculture, technical education, or trades and industry were women. Notably enough, these latter occupations have much higher wages than the areas for which women were trained. Moreover, the models that students encounter in their vocational education class closely resemble the labor force. By and large women teach the courses in home

economics, health and office skills, while men tend to teach courses in the trades and industry, technical education, and agriculture.

New laws may prompt change, or at least prompt greater recognition of the problem. Recent laws have required that all states address sex stereotyping in the vocational curriculum. For a start, all state departments of education in 1977 were required to hire a vocational-opportunities specialist to assure equality of opportunities. Do you know who that person is in your state and what activities are being done?

Sex segregation in the academic curriculum is related to the sex segregation of the occupational force. As students enter high school they are allowed more choice over their classes. Girls are much less likely than boys to choose to take math and science courses. Peer pressure often reinforces this segregation. Without this high school preparation they cannot enroll in college programs that lead to the more lucrative male-dominated professions associated with science, research, and medicine.

Data indicate that sex segregation exists among college students, particularly as they move into graduate education. For instance, women have over half of the bachelor's degrees in education, fine and applied arts, foreign languages, the health professions, home economics, the study of letters, library science, psychology, and area studies. At the doctoral level women receive over half of all the degrees in only the field of home economics, but they are also over represented (in relation to the total proportion of women receiving doctoral degrees) in most of the fields in which they predominate at the bachelor's level. Very few women receive the highest degrees in business, mathematics, the sciences, or the highest professional degrees in dentistry, medicine, and law. This differentiation of males and females within curricular areas closely resembles sex segregation in occupations.

The regulations which at one time prohibited girls or boys from enrolling in traditionally defined sex-typed classes are now themselves prohibited. Still, unofficial norms, traditions, and customs among both teachers and students support the maintenance of sex segregated

classes. Boys, girls, and their teachers understand the nature of different expectations for men and women in the society. They have been exposed to curriculum materials and messages of the public media which also portray the existence of different roles for men and women and implicitly, if not explicitly, communicate them to one another. The culture of the school teaches girls and boys to put their respective energies into different curricular areas.

Sex Inequities are Communicated Through Experiences with Adult Models

It is not surprising that the student activities of males and females are segregated by sex, particularly when one considers that the model for sex segregated work is highly visible and apparent within the adult social structure of the school organization itself. The occupational work force of the school, like the society, is segregated on the basis of sex. There are clearly defined areas of "women's work" and "men's work" in all educational settings. Generally, men occupy the managerial, governance and policy-making roles and women occupy roles which implement policy. There is also sex segregation according to subject matter and level of schooling taught.

Before discussing the staffing structure of a typical school, let us describe the staffing structure of other related educational agencies which are interrelated with schools. For instance, at the federal level two agencies, the Office of Education (OE) and the National Institute of Education (NIE) fix policy and are the regulatory and research agencies. The majority of all civil servants in NIE and OE are women (about 55 %) yet the senior level civil service positions are held almost entirely by men. The average civil service rank for a woman is 7.5 and for men is 12.0. And men are the majority (85 %) of employees in the highest ranks of civil service ranks GS 13 to 18 (Steiger and Szanton, 1977).

School boards are also highly influential. The "lay control" of schools has been an important historical tradition in this country. Each school district has a board which is ultimately responsible for the hiring of personnel and definition of school policy. School boards also are male dominated. Only approximately 20 % of all school board members are women and this percentage has increased only in recent years with the women's movement

(NSBA, 1974). In 1916 E. Cubberly, a noted educationalist and writer, discussed the types of people that would be the best for school board membership. Callahan (1967) quoted him as saying:

> Those who did not make school board members were: inexperienced young men, unsuccessful men, old men who have retired from business, politicians, saloon-keepers, uneducated or ignorant men, men in minor business positions, and women...

Evidently his point of view still prevails

Teachers in the public schools are predominantely female. This was not always the case, however. Schools were "mastered" by men earlier in our country's history. After civil war, like other times of martial conflict, women moved into the previously male role. The sex composition of the teaching force changed and teaching became a female stereotyped role. By 1926 females assumed most responsibility for teaching and running our nation's schools and the U.S. Office of Education published an article called "The Female Principal: A Fixture in American Schools." And in 1938, the female's numerical supremacy was such an established fact that a large book was devoted to The School Ma'am (Donovan, 1938).

Yet, just as sex composition of the educational work force changed in the 19th century, it continued to change in the middle of the 20th century. After World War II, men increasingly joined the ranks of public school teaching so that in 1976 women's representation as teachers was at its lower levels as in the 1870s at 66 %. The increased number of men in education was directly linked to benefits of the G I Bill; many men who otherwise might not have received post secondary education entered the educational profession. A veteran's preference still exists today. This change in education apparently resulted from the increased proportion of men in the labor force who were college graduates and the relative decline in opportunities in traditionally male professions requiring college education. O'Connor (1977) explains it as a supply and demand issue. As the labor force tightens, men move into roles that were previously occupied by women. And as men have continued to enter education their staying power has also increased, and they have moved into most of the administrative and managerial roles.

Today men's work and women's work in public shcools is highly segregated by sex as indicated in Table 1.

Table 1 Estimated Percent of Full-time Public School Employees by Sex

Position	Distribution	
	Male	Female
Superintendent and assistants	94.6%	5.4%
Principals and assistant	87.1%	12.9%
Classroom teachers	34.0%	66.0%
Other professionals	31.8%	68.2%
Teacher aides, interns	6.0%	94.0%
Office personnel	3.3%	96.7%
Other non-professionals	50.3%	49.7%

Foster and Carpenter, 1976

Male and female representation as teachers is also different in elementary and secondary schools. Women more often teach in the elementary schools. In 1974-75 83 % of elementary teachers were female, although their percentage has decreased from 90 % in 1929. More men have become elementary teachers during the past generation than ever before during the century. And in the secondary schools female teachers comprise 46 % of the total teaching staff as compared to 65 % in 1929. Although men and women are fairly equally represented at the secondary level, they are segregated by subject areas. Women comprise about two-thirds of home economics, foreign languages, business education, and English teachers, whereas men comprise two-thirds or more of teachers in agriculture, industrial arts, science, and social studies. This differentiation by subject matter closely parallels the occupational world. Men predominate in pretechnical vocational areas which are also the highest paid in the work force.

The different roles adults play in the schools can have a profound influence on children's image of themselves and for their future. Individuals develop their views of themselves and their behaviors through the expectations of others. Sex roles are learned through children's encounters in the adult world. In schools children learn very quickly that "men manage the women."

One kindergarten teacher illustrated this phenomenon very well. Her children learned quickly how to behave when adult visitors came into the room and they displayed very different behaviors for the principal and the custodian. They had quickly learned to differentiate those roles,

yet the kindergarten teacher was upset because the children were very well behaved when the male custodian was in the room and not equally so well behaved when the female principal was in the room. The children expressed the cultural view very illustratively; the male must be more important and hold higher status than the female.

In summary, sex inequities are perpetuated within the schools through curriculum content, adult-student interaction, peer-group interaction, differential access to school offerings, and through experiences with adult models. These five clusters of social processes are all embedded in the culture of a school; they all serve to provide different educational opportunities on the basis of sex and to perpetuate sex differentiation, segregation, and stratification.

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WORKING CONDITIONS AND PARTICIPATION IN EDUCATION FOR DIFFERENT GROUPS OF EMPLOYEES

Some empirical results from a THAID analysis

Extensive research concerning adult education has shown that there exists a relationship between certain background variables - sex, age, educational attainment level - and the degree of participation in adult education. Many investigations in Sweden, though not all comparable, also point to the fact that some groups of employees with a higher position at work and a relatively long formal education participate in employee training and other adult educational activities more often than other groups.

Another aspect of importance for over all adult activities is the working situation. In recent years it has been shown that inadequacies in the organizational working environment cause mental strain and tiredness. Other surveys reveal that working conditions entailing few opportunities of influencing one's own working situation might create a passive leisure with a low level of participation in e.g. political and trade union activities (Gardell 1981). The necessity of contact with others at work to release the psycho-social work-load is also recently discussed (House 1981).

The purpose with this brief introduction is to call attention to the fact that there is a complex of many different factors that could be of importance in discussing adult education.

The problem is how the different factors are related to each other and to participation in adult education. Which relationship is the strongest? Is there any relationship which seems to be of greater importance than the others?

To provide a basis for further research we wanted to find out whether by analysis of earlier collected data from a relatively representative group of employees, it was possible to

- find a structure to the above mentioned factors and
- approach the question about what importance different factors have for the decision to participate in adult education.

A suitable method for this aim is the THAID analysis (Theta-aid interaction detector). This method can be used as an explanatory model for a particular dependent variable as well as for subgrouping of a set of data. In the dataprocessing procedure the data are successively divided into parts using a certain criterion (in our case participation - no participation in adult education). The split is caused by the explaining or independent variable which at each step will perform the "best" breakdown. "Best" means that the breakdown is performed se that the variance within the constructed subgroup is as small as possible, which means that the subgroups will be homogeneous regarding the criterion or dependent variable (Marks & Barge, 1973).

This analysis was preceded by two introductory steps. First a description of the survey group, which is partly summarized in the Tables 1 and 2.

Table 1. Distribution of the survey group by fields of profession and educational attainment level.

	Number	Male employees	Female employees	Presecondary education	Secondary education	Postsecondary education
	(n)	%	%	%	%	%
1. Police and military work	85	87	13	6	72	12
2. Technical occupations	302	77	23	14	46	40
3. Administration	145	73	27	15	35	50
4. Selling promotion & customer service	179	56	44	37	58	5
5. Educational field of work	208	30	70	13	7	80
6. Nursing staff	168	18	82	5	28	67
7. Office staff	508	21	79	32	55	13
8. Others	156	55	45	41	46	13
TOTAL	1746	48	52	20.5	44.5	35

Table 2. Participation in education.

	Education total %		Education on working hours %		
Age	Men	Women	Men	Women	n
16-29 years	80	62	26	22	371
30-39 "	57	53	68	52	630
40-49 "	49	59	66	50	366
50-59 "	47	42	59	45	299
60-64 "	31	54	53	45	180
TOTAL	53	54	54	43	1746

In the second step the working conditions of the individual are more thoroughly examined. Each individual gets a "score" in working conditions. Data were collected about type of occupation, degree of responsibility, influence and control, length and location of working hours, physical and mental working environment, attitude to work, degree of satisfaction and contact with other employees, travelling time to work and salary. The "score" is then related to interest and participation in education as well as obstacles for educational activities in order to identify statistical relationships, if any. In order to be able to describe and compare groups of individuals scores are transformed into standard scores.

An example of this analysis is presented in figure 1, which shows that the greatest difference between participants - non participants is to be found in the degree of influence and control, especially staffing policy and contact with others.

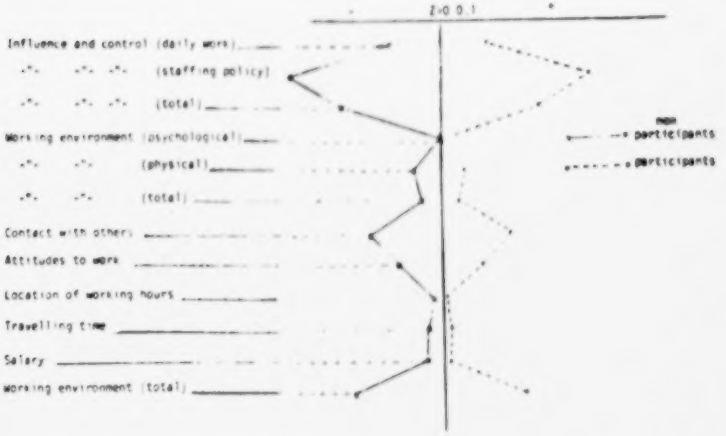

Figure 1: Differences in working situation between participants - non participants in education.

Information from the results of these first two steps was then used in the THAID analysis. Data that seemed to be of importance for participation in adult education were used as independent variables.

In the first THAID analysis, "participation in education, total" was chosen as the dependent variable and in the second analysis "participation in education during working hours" was the criterion. For both analyses the independent or explaining variables were sex, age, educational attainment level, profession, control and influence at work, contact with others at work, length and location of working hours and interest in participation in education.

The results of the analyses are presented in "tree-charts". As an example we present the chart for the analysis of participation in education during working hours (Fig "a and "b).

In the chart you can follow the successive split. The factor which performs the first split is "influence and control". More than 70 % of the participants have a high score in this sense, while almost 70 % of the non-participants have a low score. The second split is made by kind of employment.

An interesting group among the majority of participants is group 17 (Figure 2A). Women with low educational attainment level in customer service or office work but with influence and control have a probability of 63 % of participating in adult education durin working hours. Among the majority of non-participants the groups 25, 26, 27 (Figure 2B) are interesting. What differs between these groups is the degree of contact with other persons at work. If you have a lot of contact you participate otherwise you do not take part. The educational background seems to be of importance for the groups 14 and 15 (Figure 2B). The lower your attainment level, the greater the probability that you do not participate.

As an overall result you find that influence and control at work as well as contact with others statistically explain more of the participation in education during working hours, but neither is it unimportant regarding educational activity as a whole. In that analysis

"interest" performs the first split while "influence and control" comes second.

From the results of the analysis you find that those background variables (sex, age, educational background) that traditionally are analyzed when discussing problems concerning recruiting and participation in adult education must be supplemented with information about certain circumstances at work for a better understanding of the educational activity among, in this case, salaried employees.

The analysis raises some combinations of questions e.g.:

- Concerning education activity during working hours the office staff is less active than other groups. Are the possibilities for further training smaller for this group? Most of these employees are part-time working women. Today this group is most interesting due to changes in their work assignment (computer systems). This fact makes them an exposed and sensitive group at the labour market.
- Why are you more educationally active if you have lots of contacts with other people at work? Influence through the group?

However we want to make clear that these analyses mainly are limited to the working situations of the individual. It would of course have been most interesting to perform those analyses with a greater range of independent variables e.g. facts about the individual's family and leisure time. But this was not possible since we were limited by the fact that the data we processed was already collected (SCB 1979). This statement, however, does not mean that the information we used in the analyses should be less important. With current knowledge of the impact of the working situation on the total activity level of the individual and existing changes in the labour market these results need further investigations.

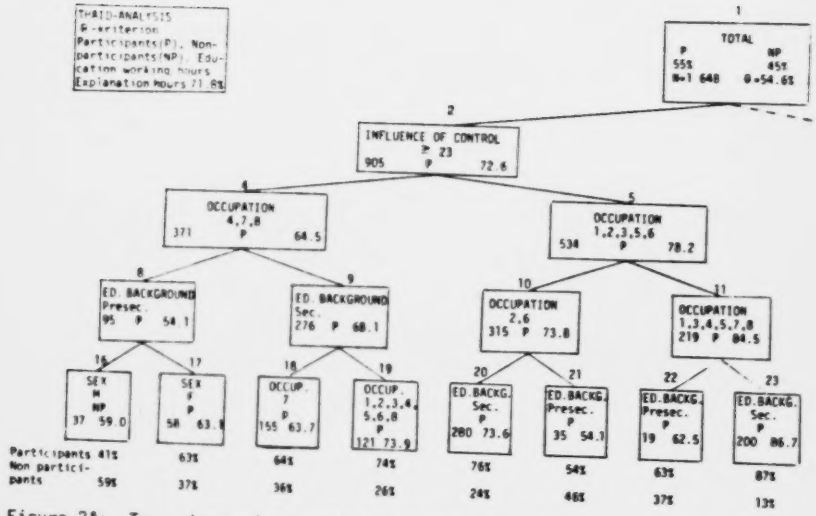

Figure 2A: Tree chart of education during working hours.

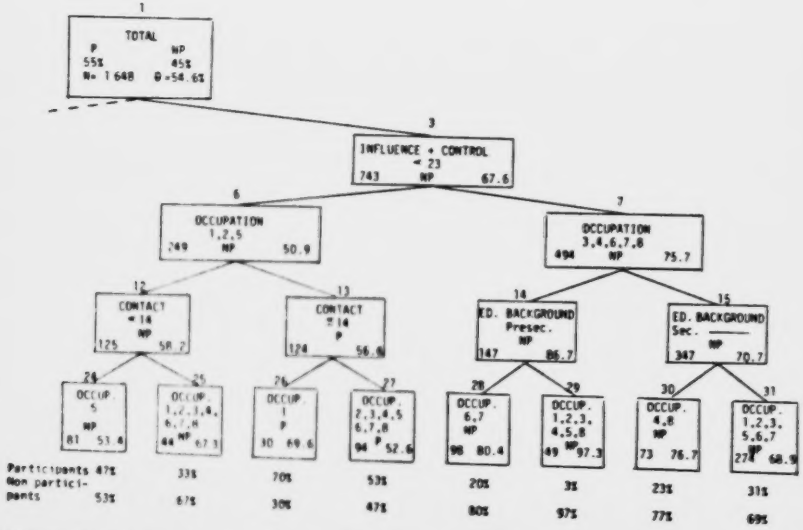

Figure 2B: Tree chart of education during working hours.

Finally, these empirical analyses point to some existing relationship between certain individual background variables and the educational situation for the individual. However, there could be a confusion about cause and effect. In order to show things in a clearer light this empirical phase has to be continued by some kind of a "case-study", where the educational process is related to a particular organization in a given society involving specified individuals (Wallin et al. 1982). Dahllöf (1979) emphasizes that "we must step by step build up an understanding of the functions of educational processes not only under different inner conditions but especially with regard to the interaction with forces and barriers in the surrounding society".

It is also of greatest importance to consider the life-situation including the working conditions, of the individual. Willén & Dahllöf (1979) call attention to the fact that "adults do not constitute any unitary groups and that due attention should in educational planning be paid the specific life-situation in which various adult students find themselves".

To achieve this understanding the purpose is, as we said before, to continue the empirical phase of the study with some kind of "case-study". This could make possible an analysis of educational needs, obstacles and participation in education considering the individual, the organization and the society as a whole.

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Christer Stensmo

THE DEVELOPMENT OF COOPERATIVE EFFORTS IN THE CARE AND TREATMENT OF ADDICTS IN SÖDERMANLAND COUNTY

Aim

The aim of this project has been to test various types of cooperation between the different social welfare departments which come in contact with the same clients/addicts. The social welfare departments in question are the social welfare units in each of the county's seven municipalities, the medical care facilities within the county and the five homes for the care and treatment of addicts.

Cooperation can be achieved by means of organizational development, through a common education system or by means of job exchange schemes. The purpose of this project is to develop routines for cooperation, promote a common attitude towards addicts and their treatment and to establish a common treatment programme. The work is based on the experiences described by Brunander (1979, 1982), Stensmo (1979), Humble and Janson (1981), Moxnes (1981) and Nycander (1982).

Basic assumptions

Organizations can be changed partly by means of reformation within the structure of the organization (rules, agreements),partly by means of bringing about changes within the personnel (competence, motivation). Wallin and Berg (1983) have in a recent paper defined these reform strategies as DO (Developing an Organization) and OD (Organizational Development)

As with schools, the institutional structure for the care of addicts is bound by a set of rules and regulations which restrict freedom of action for the actors within the organization. In order to effect change within the organization, it is not sufficient to introduce reforms applicable only to the actors, e.g. through education. The whole system of rules - the bureaucracy which dictates policy within the field of social welfare - must also be subjected to reform. In an earlier paper

I have discussed the advantages inherent in applying the framework-factor-process-outcome model on the Dahlöf (1971) and Lundgren (1972) pattern in the analysis and reform of organizations for the care and treatment of addicts (Stensmo, op cit).

The organization of the project

In all, 35 people from the municipalities, hospitals and institutions, have taken part in the project. All the participants are actively involved with field work and client contact. The participants were proportionately divided into three groups; one youth group covering the whole county and one each for the northern and southern districts of the county.

The groups met for three hours, every three weeks in order to plan coming strategies for cooperation and treatment and to make an assessment of the cooperative efforts and treatment already carried out. Each meeting has been carefully documented. In all nine meetings were held by each group during the period for the trial.

The result

The most interesting result produced by the project as far as organizational theory is concerned, was the number of conflicts and dilemmas which arose from attempts at cooperative measures on behalf of the individual clients. Ten dilemmas could be identified and learning to overcome or handle these dilemmas plays a major part in the day-to-day routine for a social worker. Solving or coping with these dilemmas necessitates both OD strategies (education, personnel development) and DO strategies (changing the regulations, structural changes).

DILEMMA 1: Investment versus cuts in expenditure

By investment in the care and treatment of addicts is meant an increase in the amount of money, time and commitment available in the field and by cuts in expenditure is meant a decrease in the amount of time, money and commitment.

Financial cuts within the public sector have of course meant that the economic resources available to the social welfare and the medical care sectors have been reduced. As far as institutional care is concerned this has meant that the total number of ward places for drug addicts has increased somewhat during the last 10 years whereas the total number of places available to alcoholics for treatment or accommodation has decreased.

Likewise the time allocated to each client has been reduced since the number of employees has not kept pace with the increasing number of clients.

Such reductions in facilities often result in a lack of job incentive for those who continue to work in the field. The lack of facilities is often cited when employees are not particularly optimistic as to the outcome of their efforts.

DILEMMA 2: Specializing versus general competence

The new law regulating social welfare advocates and has put into effect the principle of general competence. This means that a social workers now deals with all kinds of social cases each social welfare board dealt with the cases in its own special field.

In the social welfare area this emphasis on versatility means in practice that certain social problems are given precedence over others. Cases involving children can be thought to be more worthy of campassion and therefore tend to go before cases involving addicts. The care and treatment of addicts is furthermore regarded as laborious and the prospects of achieving a successful outcome not very encouraging.

In the field of health care, instead of having special wards for addicts, all-purpose wards admitting all categories of patients have been established. In that the wards are no longer classified, there is less need for classification of the patients in terms of illness. This in turn obviates the need for a diagnosis as a means of identifying patient

categories. Now there are patients with "psychological problems" rather than the more defined problem of "addiction". This situation whereby patients are not fully diagnosed as addicts is particularly prevalent in the field of child and youth psychiatry.

DILEMMA 3: Many versus a few

Applying the principle of all-round competence in the field of social welfare means that the social worker has to deal with many different kinds of cases rather than specializing in a few. Lack of classification within the wards means by the same token that staff have to cope with clients of all categories. The number of patients/clients encountered in a day has a direct effect on the extent to which the social worker can aquaint him/herself with a case/client and the time and involvement which can be invested. Too many cases/clients can result in care and treatment being administered on an assembly line basis where procedures rather than personal involvement are uppermost in importance.

DILEMMA 4: Short-term versus long-term

Time is an important aspect in the care and treatment of addicts. Helping addicts to adapt to normal life patterns or rehabilitating them takes time. The administration of care is defined as a task to be seen from a short-term perspective whereas rehabilitation is a long-term project.

Within the social welfare units as well as the medical services and treatment homes - with the exception perhaps of therapeutic communities for drug addicts - the time factor is a limited one. As far as the social welfare unit is concerned, the time dimension involved is often the time it takes to place a client so that they can then turn to the next case. For the medical services, the time factor in question is the time it takes to restore a patient to the stage where he/she can be discharged or moved on to another department. In the social care sector, the time factor involved can be anything from several weeks to several months. When planning the care and treatment of an

addict, long-term goals expressed in years are unusual.

DILEMMA 5: Voluntary versus compulsory care

Care and treatment of addicts, in accordance with the Social Services Act, can be effected on a voluntary basis (SoL) or compulsory (LVM).

Before LVM can come into effect, an inquiry has to be held in the county courts. During the time of the investigation the client may change his mind - particularly when faced with the prospect of spending two months in an institution against his will - and voluntarily commit himself to care. The investigation which has been initiated as part of the process towards commitment to care in accordance with LVM, is then dropped since voluntary care measures take precedence over compulsury. This means in practice that a client who consents to care in accordance with SoL, can discharge himself from the institution after one or two days whereupon the whole process has to be repeated or a new investigation started.

In the case of the municipality of Eskilstuna, this state of affairs, whereby a client under investigation for LVM but suddenly consenting to care and therefore coming under the jurisdiction of SoL, constitutes a special problem. Cases coming under LVM are dealt with by a special department within the central administrative office whereas cases coming under the jurisdiction of SoL are the province of the local district offices. This means that when a client has this change of mind, the whole project is then handed over to the local district office. The material which has been gathered during the course of the investigation more often than not remains with the central office whereby the whole process has to be started again by the local office.

DILEMMA 6: Frame legislation versus specific rules

The Social Services Act is an example of frame legislation

which means that it defines the area of jurisdiction within the field of social welfare but does not stipulate the measures to be taken or which should be taken. Two special laws, Care of Young Persons Act (LVU) and the Care of Alcoholics and Drug Abusers (Certain Cases) Act (LVM) give rather more precise instructions. In the social security area, however, there are many specific rules including numerous examples of legal precedents, instructions for the distribution of state grants to the various social institutions, rules applicable to the labour market and trade union agreements. Specific rules generally have precedence over the indications given in frame legislation. This means that even though a specific law may contradict the spirit of the frame legislation, the former sets aside the latter Frame legislation is moreover so loosely formulated that it can be subject to various interpretations whereas the scope for interpretation in the case of specific rules is much more limited.

DILEMMA 7: Personal integrity versus early intervention

The rules governing secrecy and the Secrecy Act sworn by public servants working in the whole area of social care provide a guarantee that anything said in confidence will not, without the consent of the client, be discussed with other members of the staff. Apart from this protection provided by law, each professional group applies a code of ethics. Discussion of individual cases without client consent is therefore prohibited apart from special cases where criminal legislation takes precedence over the rules for secrecy.

Recognized addicts, those who have been subjected to official proceedings are generally known to those working in the field. In those cases there is usually nothing to hinder an exchange of information or the commencement of initiatives to coordinate future care and treatment measures. However the number of recognized addicts represents only a small proportion of the total numer of addicts in Sweden - estimated to be about 300,000 by the Board of Health and Welfare.

The majority of addicts are secret addicts, known only to a few besides family and friends; doctors, medical care personnel or social

workers at the alcoholism clinics or counselling units for drug addicts. Addicts who are not officially recogni ed as such, are shielded in their dealings with employees in the social welfare field by the confidential nature of their relationship and by the code of ethical conduct. Thus the employee may not impart any information to a colleague even if he/she deems it desirable/advisable from a care and treatment aspect. An addict must be recognized and identified before the employees working in the field feel free to discuss the case and collectively plan future treatment. For an addict to be officially recognized by the authorities - at least where alcoholics are concerned - is a long drawn-out process. This means that the client has progressed far along the path of addiction before care and treatment measures which demand a cooperation of efforts from the various institutions can be implemented.

DILEMMA 8: Money versus care

The social welfare workers attached to the social welfare unit must provide their clients with support as well as care and treatment. Support measures are financial in character and care and treatment are of a therapeutic character which means that the two transactions tend to evoke different social worker/client relationships.

The supportive transactions can often bring about a manipulative aspect in the relationship between the two. A bargaining situation arises wherein the client tries to squeeze as much money as possible out of the authorities and the socialworker tries to beat him/her down for fear of being "taken for a ride".

Care and treatment transactions require a relationship of mutual trust between the parties - a relationship free from manipulation and suspicion.

Some social welfare units have tried, as an experiment, separating the functions - supportive measures and care and treatment. The reason cited is that the two functions are not compatible in the social worker/client relationship. Others are of the opinion that the role

of the social worker will never be free from conflict and contradictions; that this should be accepted as part of the job and that it is fruitless to try to solve such problems by means of dividing the social worker corps into different categories each dealing with one particular aspect of the job.

DILEMMA 9: Day-patient versus inpatient care

Formally speaking, the social worker attached to the social welfare unit, i.e. the section dealing with day-patients, is responsible for the care of the addict. This means that they are responsible for planning the care and treatment of the addict, including where the need arises, using all the resources at their disposal i.e. psychiatric clinics, nursing homes and live-in homes. Formally, the social worker's plan of work takes precedence over that of the other sectors.

When a social worker places an addict in a home for treatment or live-in accommodation, he/she naturally expects that the client will remain there for the agreed period. However, the care/treatment can be prematurely terminated in two ways; the patient takes himself off - or is discharged. When the patient leaves the institution of his own free will before the period of treatment has expired, this situation is largely a matter between himself and the social worker. Should the addict be discharged from an institution for having broken its rules, this is mainly a matter for the institution and the social worker in charge of the case. In order to enforce rules such as those which forbid the possession and use of drugs in the home, transgressors are usually discharged. However such disciplinary measures can come into conflict with the social worker's intention and plans.

DILEMMA 10: To persevere versus giving up

For recognized and confirmed addicts who are repeatedly taken into hospital for detoxification and who are otherwise well known to the social welfare authorities and institutions, the prognosis is

generally not favourable and hopes for an improvement in their situation are not generally high. In cases where repeated unsuccessful attempts have been made to help the addict on the path to recovery, it is easy to give up and regard the addiction as incurable and consequently "hopeless". When cases are regarded as chronic, the care and treatment measures often become desultory and expectations of a positive outcome are small or non-existent. But there are examples of "hopeless cases" undergoing a remarkable change and being able afterwards to reap the benefit of the care and treatment measures in a way previously regarded as unlikely. It is impossible to predict which of those "hopeless cases" can turn into "successes". It remains only for workers in the field to put every possible effort into each case however doubtful the outcome and however many the set-backs.

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Eric Hoyle

ORGANIZATION THEORY AND THE SCHOOL: A PARADOX

The paradox which I wish to discuss is that whilst organization theory has made such a powerful contribution to the study of industrial, commercial, political, health and welfare organizations, it has provided the theoretical basis for relatively few studies of the school. Reviews of the state of the art over a twenty year period demonstrate that in Britain at least very little progress has been made over this period (Boyle, 1965, 1973; Davies 1973, 1982). The paradox is compounded by the fact that there is no lack of awareness of organization theory amongst students of educational organizations. Many studies find space for organizational theory, but its status is that of a heuristic, a touchstone, a contextual theory rather than a theory-for-testing. To some degree, then, studies of and in educational organizations have been somewhat parasitic on theories developed in non-educational contexts.

There are a number of possible reasons why organization theory has been underutilized in education except as a heuristic. One is that as a theoretical approach it does not appeal to agencies which fund educational research and therefore the study of educational organizations is underresourced. A second is that it is seen by educational researchers as having little relevance to the problems with which they wish to engage when studying organizations. A third is that mainstream organization theory has, indeed, little relevance to the study of schools because, as organizations, they are essentially different from the industrial and commercial organizations in which the theory has been developed. A fourth is that organization theory as such needs further development before it can be made relevant to schools. These are the issues to which this paper will address itself beginning with the central question of whether mainstream organization theory has much relevance to schools.

Mainstream organization theory and the school

My first unenviable task is to state what I mean by mainstream organization theory. As a gross oversimplification I would contend that mainstream has arisen from a confluence of two traditions: sociological theories focussing on organizational structures and power which have stemmed from the work of Weber, and managerial theories having the same focus but conceptualized somewhat differently which have stemmed from Taylor, Unwick, Barnard etc. The contemporary heirs of this confluence, usually drawing inspiration from one tributary or the other, are Gouldner, Blau, Etzioni, March, Simon, Perrow, Pugh, Hall etc. We can identify some of the essential characteristics of the initial theories of organization as follows: a commitment to the ontological priority of structure, an implicit and, latterly, explicit systems model, a strong functionalist strain, a belief in the possibility of understanding organizations as entities by focussing on a limited number of key variables, a methodological commitment to the possibility of a valid, objective study of organizations with a role for positivistic research and, beneath all this, a strain to the normative - a belief that organizational effectiveness can be improved via theory and research.

It is quite clear from the contributors cited above that this central position has not gone unchallenged. Within sociology the functionalist tendency has been challenged by conflict theorists and the structural orientation by symbolic interactionists. Within the management tradition the limits to rationality have been stressed. And within the socio-psychological tradition, and particularly what is usually labelled the 'human relations' approach to management theory, individual needs are set against structural imperatives and the key role of the small group within the organization is emphasized.

These divergences suggest that the mainstream is centrifugal with the various contestant approaches flying off into a diversity of

alternative theories. This may be the appropriate image but my impression is that the mainstream is centripetal in the sense that the alternative theories always have to engage in some way with the mainstream tradition. These alternative theories may originate outside organization theory in the general theoretical realms of sociology, psychology, politics and economics, but within the domain of organization theory there appears to be a compulsion to debate with the ghost of Weber. The reason is not perhaps because the mainstream is such a compelling theory but that in spite of theoretical alternatives to conventional organizational structures and practical experiments in alternative modes of integration - more in evidence is diffuse units such as communes than units with specific goals such as commercial enterprises - mainstream theory engages with organizations as they are i.e. complex, formal and structured. (See Burrell and Morgan, 1975, for an excellent review.)

It may be the case that in focussing on structure and administration as the determinants of organizational character, mainstream organization theory has failed to engage in any substantial way with the possibility that the organizational character of the school is determined more by its curriculum - both overt and hidden-pedagogy, informal relationships and competing subcultures than by its formal structure. This is not to say that the structure is wholly emergent and socially constructed by organizational members as they pursue the activities of teaching and learning. It is to a degree a given, established both from above and from without. What seems to be an important characteristic of the school is the relative independence of the educational activities of the school from the central administration. Ironically, this has been frequently pointed out by writers who have taken mainstream organization theory as their heuristic. Thus Bidwell (1965) in his influential review notes the 'structural looseness' of the school, Litwak and Meyer (1965, 1974) conceptualize a 'balance model', Lortie (1969) writes of 'the balance between autonomy and control', and Weick (1976), in what has become

a popular metaphor, writes of 'loosely coupled systems'. The issue is not simply one of de-centralisation which, of course, has received much attention in organization theory. It is a question of whether the influence of the central administration becomes attenuated with an interstitial and independently constructed reality in classroom and staffroom giving school life its meaning. One does not wish to overemphasize this independence. Structure undoubtedly has a significant influence and does not readily emerge even in those free schools which have been sufficiently protected from external demands to allow them to develop their own structures-for-interaction. Structure is the backbone, but how much would be learnt about the human body by focussing our attention on the backbone?

A number of studies have addressed this problem in schools. The dominant approach has focussed on the hypothesized bureaucracy v. professional autonomy conflict. This is a genuine organizational issue and has stimulated some of the best organizational studies of schools within the mainstream tradition e.g. Anderson (1969), Corwin (1970), Punch (1969). There is no doubt that the operationalization of bureaucracy 'works' in that it discriminates between school and correlates with other variables. However, one must ask whether the problem has always to be approached via the model of bureaucracy. It is difficult to see how small elementary schools can approach anywhere near the ideal type of bureaucracy. Insofar as it is a structural property, its application may be limited. It may well be that climate is a much more telling dimension. A phenomenologically-inclined sociologist might well criticise the operationalized use of bureaucracy in research since this is to impose a sociologist's second-order construct on respondents. If a sociologist devises an instrument to measure bureaucracy he will prove that bureaucracy 'exists'. The same criticism would apply to a similar approach to the study of climate. Interestingly Halpin (1966) conceded this long before the emergence of the phenomenological critique when he noted that he didn't 'discover' his six organizational climates, he 'invented' them and urged that

OCDQ should be supplemented by ethnographic studies to establish whether the climates were a reality in the schools.

The loosely-coupled nature of the school has given rise to little theoretical development. Bureaucracy is still the starting point for many studies however distant schools may be from this model. It is doubly paradoxical since organization theory tends now to be focussed on contingency models to which schools to some degree approximate. Educational organization theory ought to have contributed more significantly to this more realistic approach to organization theory which relates structure to emergent and variable goals. Of course, the concept of 'organizational goal' is fraught with difficulties and is dismissed out of hand as a piece of reifying nonsense by phenomenologists. Nevertheless, even if goals are only the property of the elite, or even of the principal, and even if they are emergent and the outcome of conflicting interest groups within the school, they endow the school with some degree of purpose, direction or even mission. There is therefore the need to explore structure, power and authority in relation to the different 'missions' which schools can have. An example would be the study by Swidler (1979) of how two 'free schools' tried to cope with the problem of organizational power when the educational 'mission' of the two schools is informed by equality and collaborativeness.

Alternative approaches to the study of schools

One should perhaps draw a rough and ready distinction between the study of schools as organizations and studies in schools as organizations. The former would involve the application of organization theory. The latter takes the organization for granted and, by implication, not a particularly powerful influence on the educational activities of schools. These studies thus focus on particular problems in schools with organizational theory taken as a heuristic - if taken at all. The majority of British studies are studies in schools and one can briefly identify some of the areas which have been the focus of attention.

1. Classroom studies. These have been mainly ethnographic and have not generally sought to contextualize classroom processes in the wider organization of the school. In some instances the studies have not transcended the here and now of the classroom, in other instances classroom interaction has been contextualized in the socio-political context of society (e.g. Sharp and Green, 1975).

2. Studies of curriculum. These have been guided by a variety of perspectives such as Marxian theories of social and cultural reproduction, in theories of social reconstructionism, or in relation to Bernstein's theories concerning the structuralist relationship between components of curriculum, pedagogy, and evaluation (Bernstein 1971). This work has organizational implications but these are derived from the Durkheimian rather than a Weberian tradition. Curriculum evaluation has been concerned with input-output models with the schools as 'black box' or has been concerned with process and has adopted an 'illuminative' approach. The latter approach has taken some cognizance of the school but as a cultural system approached via symbolic interactionism rather than via organization theory.

3. Pupil differentiation. This has been a preoccupation of educational researchers in Britain but the tendency has been to take grouping for instruction as a single dimension of structure and to seek to relate this to pupil learning. Some of the best case studies of British schools have been concerned with this problem. Hargreaves (1967) and Lacey (1977). However, these began as observational studies uncommitted to any particular theory and certainly any organization theory. Both identified as one of the central features of British schools at that time the relationship between streaming by ability and structure and cultures of peer groups. A recent study by Ball (1981) in the same tradition makes little use of organization theory.

4. Studies of staff development. These studies in Britain have been approached largely via action research projects which insofar as they have had a theoretical base it has been that of innovation theory and an emerging theory of professional development (see Bolam, 1980). Contextual factors have been incorporated into the action

projects but organization theory has had a very little part to play.

5. Studies of innovation. The study of educational innovation and organizational change has been less informed by organization theory than by specific theories of innovation such as the work of Havelock and theories of organizational change (see Hoyle, 1970, 1972, 1976). Of course, theories of organizational change are predicated upon theories of organization and two sources are the 'open-system' model of American theorists such as Bennis. Innovation studies tend to be actionoriented and here the guiding work has been in the area of Organizational Development e.g. Schmuck and Runkel (1972).

6. Studies of school climate. There have been far fewer studies of school climate in Britain than in the U.S. Where these have been undertaken they have been particularly concerned with the significance of climate for pupil learning. Banks and Finlayson (1973) adapted OCDQ for use in British schools with both teachers and pupils and Rutter et al (1979) developed their own measure of ethos in their influential study which distinguished between the quality of schools.

7. Studies of school management. It is clearly in this area where one might have expected the largest body of research drawing on organization theory. It is, in fact, the case that it is in this area in which organization theory is most frequently apparent. However, it has been far less influential than one might have anticipated. A persual of the Journal of Educational Management and Administration reveals a concern with specific management issues for which the theoretical base, where this exists, lies in the area of management theory. Very few book length studies of school management exist and in those which do very little use if made of organization theory. One of the most notable case studies of school management and professional relationships (Richardson, 1973) draws upon the approach of the Tavistock Institute to the study of organizations and management which is more psychologically than sociologically oriented. This is probably the most widely read and influential piece of research on school management.

Thus, although there is a considerable amount of research in schools

as organizations, relatively little of this work has been concerned with testing organizational theories. This is not to say that a number of studies have not, to a greater or lesser extent, acknowledged some debt to organization theory. Examples would be King 1969, 1973, Tipton 1975, Paisey 1981. However, organization theory has been little used as a formal theory. It is clear that in Britain many researchers have not seen it as highly relevant to their work.

This raises the question of whether organization theory is not in 'good currency' with the agencies which fund research. This is a difficult question to answer. My knowledge and experience lead me to suggest that the Department of Education and Science favours proposals for projects which engage with a substantive problem experienced by schools, preferably with an applied or action orientation. It would appear to be the case that few projects have been formulated which fulfil these expectations and are also underpinned by organization theory. The Social Science Research Council is open to good proposals of any genre, but it happens to be the case that relatively few proposals, and even fewer successful proposals, have been made which have been underpinned by organization theory. Again, it appears that it has not been an area of enquiry which has been of great interest to educational associations in Britain.

The attractions of interpretation

It would appear to be the case that, whether correctly or not, many educational researchers see the 'real life' of schools as shaped less by structure and administration than by the social constructions created by members. Thus the interpretive approach which has gained in strength over the past twenty years has come to seem particularly appropriate to the study of schools, particularly studies informed by a phenomenological epistemology. Essentially, this approach rejects the notion of an organizational strucutre 'out there' independent of consciousness of men and coercive in relation to their activities. They see organizations as social constructs, their structures as nothing other than a set of common understandings which men have negotiated which, having been constructed, can be reconstructed. It is, of course, the case that what has been socially

constructed becomes reified and appears to be coercive, but, a phenomological perspective challenges these taken-for-granted assumptions. The perspective rejects the reification of the school as an entity. Of course, it has a location and a membership but different sets of members can construe the school differently thus there is not one 'school' which is objectively knowable but several. If there is a consensus view about the school amongst members this is fortuitous or occurs because some groups, usually the administration, has imposed its own definition of the situation, though this is an unlikely achievement. Hence a phenomenological approach has little use for the concept of organization exept as an arena in which different perspectives conflict. It follows that the scientific methods of study are inappropriate and that the proper data to study are the interpretations of members. Hence the methodology consists of interpretations of interpretations achieved largely through observation and through the analysis of the first order typifications used in everyday speech.

In fact, very few strictly phenomenological studies relating to school processes as opposed to classroom processes have been produced. A number of writers, and many doctoral students, make obeisance to this perspective but are rarely rigorous in their acceptance of the epistemological, theoretical and methodological implications. Most in fact settle for mixed approach and hence try to square the epistomological circle. The notion of the problem is not difficult to grasp. Organizations are to some extent social constructs and the process of their construction can be studied. But their processes do become institutionalized and persist over time and can be studied as if they were objective. But the two approaches cannot be handled together. The approach chosen must be congruent with the purpose.

The attractions of case studies

The case study approach is particularly attractive to students of educational organizations and there are a number of obvious reasons for this. It allows for an eclectic approach to data collection, it permits a better understanding of organizational life than a questionnaire-based large-scale comparative stude, and it is with-

in the compass and resources of the individual researcher, especially the Ph.D. student. Sometimes two cases are studied simultaneously but usually only one. The case study allows the investigator to be relatively open-minded rather than committed to testing a theory thus increasing the chance of serendipity, it allows him to focus on a particular issue or problem and to follow its ramifications, and above all it permits the study of sensitive issues which could not have been investigated at all without the investment of considerable time on the part of the researcher in establishing his credibility. Some recent examples of British case studies are as follows: Whitehouse (1978), Gilbert (1979), Beiley (1982) and Murray (1983). The latter study exemplifies the extreme sensitivity which can be involved in such studies and it was concerned with the cultural differences in two Northern Ireland primary schools a short distance apart, one Roman Catholic and the other Protestant.

Case studies inevitably raise the problem of objectivity, at epistemological and nethodological levels. These are well-known and have been discussed for many years although they have been the focus of much division in recent years with the problem of interpretation in phenomological approaches and the strategy of 'triangulation'. Another problem is that of generalization. Case studies deal with both what is unique and what is, to varying degrees, general about organizations. The problem is that generalization from case studies is dependent upon the existence of a large number of studies and even then there are limits to what can be generalized. At the moment case studies of educational organizations are few in number and tend to be idiosyncratic and cumulative only to the most limited degree. One could conceive of a programme of case studies which might be cumulative, but it is unlikely that the conditions for such an enterprise could be created. The 'grounded theory' approach of Glaser and Strauss (1968) is a touchstone for many students of organization but, in fact, few individual researchers are in a position to meet the reauirements of this approach particularly in the important 'method of continuous comparison'. Perhaps one fruitful way forward is to have members of a research team undertaking a survey study of organizations to undertake Ph.Ds which are studies of the single case. This approach at least enables one to

contextualize the case and to put some flesh on the survey data. The study by Murray (op cit) is an example of this approach.

One can take a long term view of generalization and trust that case studies will be cumulative. However, this form of research is essentially contributing to theory-for-understanding whereas increasingly research fund are going to projects which offer theory-for-changing. Case studies do not produce the definitive answers for which policy makers are increasingly looking in the same way that it is assumed that applied survey research and action research does. But that is to raise issues beyond the scope of this paper.

(It isn't my intention to discuss American studies of educational organizations except where they have contributed to theory. However, I would note in passing that with a few exceptions e.g. Anderson (1969) I regard case studies as having offered greater insights than comparative studies. I have a high regard for Burton Clark's (1960) early study both in terms of its methodology and the intrinsic interest of the substantive findings. Two case studies of innovation in schools (Gross, 1971) and Smith and Keith (1971) are interesting for the light which they shed on the barriers to innovation but also tell us a great deal about schools as organizations. And Cicourel and Kitsuse's (1963) account of counselling in a high-school is an interesting early study taking a phenomenological perspective.)

The micropolitical dimension of organizations

Hitherto, the implicit assumption of this paper has been that organizational studies have established a canon of theory and research which educationists have underused in the study of schools and colleges. This is partly but not wholly true. One senses that organization theory itself is in the process of undergoing some fundamental changes. One is the growing significance of contingency theory. Another is a developing inclination to focus on that domain which mediates between organizational structures and group processes which one can term the 'micropolitical'. The pieces of the jigsaw which would construct a picture of this domain are to hand. They include formal theories of exchange, bargaining, gaming,

politics etc and interactionist approaches dealing with symbols, ideologies and the construction of organizational realities. The take-up of 'garbagecan' and 'organized anarchy' metaphors indicate that they have touched upon a neglected aspect of organizations. These studies are not yet sufficiently coherent to constitute a new paradigm but some of the contributors are Crozier (1975), March and Olsen (1976), Mangham (1979), Bacharach and Lawler (1980) and Pfeffer (1981). This approach may be particularly relevant to educational organizations (Hoyle, 1982). The 'loosely-coupled' nature of schools and the growing emphasis on participative patterns of management perhaps render them particularly susceptible to the establishment of a 'negotiated order' in Strauss' terms.

Conclusion

The basic argument of this paper is that the application of organization theory to schools and colleges has not been as widespread as one might have anticipated. Educationists have tended to undertake studies in schools which have paid scant attention to organization theory. It would seem that organization theory stands in relation to studies of schools as philosophy of science stands to scientific research: it is there, researchers are willing to discuss it in an almost avocational manner, but it does not directly inform their studies.

A number of suggestions have been put forward to account for this. The paper has been somewhat pessimistic but to offset this one can point out that mainstream organization theory may still hold promise for the study of schools since it certainly hasn't been tested to destruction, that accumulating case studies may improve our theories, and that new trends in organizational theory may be particularly applicable to schools.

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